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SENATE

SUBCOMMITTEE
MONOGRAPH No. 1

THE EXPERIMENTAL HEALTH PROGRAM OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

A STUDY MADE FOR THE SUBCOMMITTEE ON WARTIME HEALTH AND EDUCATION OF THE COMMITTEE ON EDUCATION AND LABOR, UNITED STATES SENATE

PURSUANT TO

S. Res. 74
(78th Congress)
and
S. Res. 62
(79th Congress)

Authorizing an Investigation of the Distribution and Utilization of Health Personnel and Facilities, and Related Services

JANUARY 1946

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INTRODUCTORY NOTE

This report has been prepared in response to the following request:

JULY 17, 1945.

Hon. CLINTON P. ANDERSON,
Secretary, United States Department of Agriculture,
Washington 25, D. C.

DEAR MR. SECRETARY: The Subcommittee on Wartime Health and Education was, as you may know, created by the Seventy-eighth Congress and renewed by the Seventy-ninth, to study the distribution and utilization of health personnel, facilities, and services in the United States. In studying the health problems of rural and urban people since the beginning of our work, we have become increasingly aware of the shortage of doctors and hospitals in many rural areas, as well as the great health needs in general of rural people. The economic aspects of the problem and the necessity for developing methods for prepayment of medical expenses have likewise become clear.

The experimental health plans sponsored by the Department of Agriculture's Interbureau Committee on Postwar Programs and administered by the chief medical officer of the Farm Security Administration in various counties throughout the United States have been brought to our attention recently. We believe that these plans, all based on the tax-assisted voluntary health-association principle, constitute a series of experiments of interest to the whole Nation. They are particularly important at this time, when our whole future national health policy is being decided. The experimental plans undoubtedly offer in practice a test for the ideas of those who consider that tax-assisted voluntary health associations might be the solution to this problem.

Certain of the excellent studies made of these experimental plans initiated by the chief medical officer of the Farm Security Administration in cooperation with the Division of Farm Population and Rural Welfare of the Bureau of Agricultural Economics have likewise come to our attention, and, in view of their national importance, we feel that summary presentation of the most relevant data in these studies would be of the utmost value to the Congress, as well as to State and local postwar planning committes, health officers, professional, labor, farm, church, and other groups who are thinking seriously about ways of meeting the medical-care problem. Such a presentation of the material should be valuable not only to those who are considering starting prepayment plans, but also to those who are weighing their attitudes toward compulsory health insurance.

We should therefore appreciate it very much if you would make available to us such a summary presentation of the studies of the experimental health plans. If this could be done we should like to issue the material as a subcommittee print so that it may receive adequate distribution and study during this period of intensive national health planning.

Best wishes to you, and
Always sincerely,

CLAUDE PEPPER, *Chairman.*

LETTER OF TRANSMITTAL

OCTOBER 25, 1945.

Hon. CLAUDE PEPPER,
Chairman, Subcommittee on Wartime Health and Education,
Committee on Education and Labor, United States Senate.

DEAR SENATOR PEPPER: In compliance with your request of July 17, 1945, I am transmitting herewith original copy of the report, The Experimental Health Program of the Department of Agriculture, prepared by the Bureau of Agricultural Economics.

As I indicated to you in my letter of July 30, we are pleased that this material is being used constructively during this period of intensive national health planning. Since we are vitally interested in the health field, particularly as it affects rural people, we are glad to make this report available to your committee for publication.

Sincerely yours,

CLINTON P. ANDERSON, *Secretary.*

RESPONSIBILITY FOR REPORTS

This final report and recommendations have been prepared by T. Wilson Longmore under the leadership of Carl C. Taylor and Douglas Ensminger. The preliminary reports covering operation of each of seven health associations were prepared by the following staff members of the Division of Farm Population and Rural Welfare, Bureau of Agricultural Economics: A. H. Anderson, Olen Leonard, T. Wilson Longmore, M. Taylor Matthews, James Montgomery, Herbert Pryor, and Theo L. Vaughan. T. G. Standing, a former staff member but now at New York State College, helped in the original planning of the surveys. Margaret Lantis assisted materially in the condensation of the reports.

ACKNOWLEDGMENT

Boards of directors and members of the seven health associations cooperated wholeheartedly in the gathering of material on which this final report is based. Each association manager helped direct the field survey and placed local records at disposal of the analysts. All physicians and dentists in the experimental counties responded with helpful information when called upon. Mention should also be made of the contribution of the regional medical officers (most of whom are on detail from the United States Public Health Service) and health specialists of the Farm Security Administration in expediting the field surveys. Thanks are due to many local county leaders and officials for their help, including Farm Security Administration supervisors, the county extension agents, public health personnel, and county officials. In preparing the final report, assistance was given by the medical, dental, and statistical staffs of the Health Services Division, Farm Security Administration, especially F. D. Mott, Jesse B. Yaukey, Milton I. Roemer, Philip W. Woods, and Kenneth E. Pohlmann. For analysis of certain medical aspects of the experimental health program, the authors have had access to unpublished reports of Franz Goldmann, M. D., associate clinical professor of public health, Yale University School of Medicine. Pictorial presentation included in the report was done by Philip C. Curtis. Gladys Marshall supervised the typing and editing of the final report.

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FOREWORD

This report deserves careful study by all who are seeking the way to better health for our whole population. We hear a great deal about voluntary health insurance today, and the suggestion is often made that with supplemental support from public funds voluntary health insurance might solve the problem for the lower-income groups as well as those fully able to pay. This timely report deals not with theories but with actual operating programs of tax-assisted voluntary health insurance. Thanks are due to the Bureau of Agricultural Economics for carrying out thorough field studies and reporting them so objectively.

Medical administration is benefited immeasurably by concurrent studies of this kind by the social scientist. To complete the picture one would like to have qualified medical personnel conduct equally thorough appraisals of the quality and organization of medical services in each program. Even in this technical field, however, the report reflects a commendable awareness of many of the problems involved (due in part, perhaps, to access to unpublished reports of field studies in two of the counties by an outstanding medical consultant).

Aside from its broader implications, this painstaking and thoughtful study will be of immediate usefulness to the Department of Agriculture's Interbureau Committee on Postwar Programs which is sponsoring the "experimental" rural health program. The study will be particularly helpful, too, to the Farm Security Administration, which is responsible for supervising and furnishing financial aid to the experimental rural health associations. The individual field studies, in fact, are already having their practical application in efforts being made to improve and strengthen the operating program.

The implications of this report go far beyond those bearing on day-to-day administration. It holds lessons for every rural community and for urban as well as rural America. At a time when the Nation is facing its health problems, weighing possible solutions, and rapidly approaching the stage of long-needed action, it is gratifying that this report, with its sound conclusions, is being made available for widespread review.

F. D. Mott,
Senior Surgeon (R.) USPHS,
Chief Medical Officer,
Farm Security Administration.

EXPERIMENTAL HEALTH PROGRAM

PART 1. GENERAL STATEMENT AND CONCLUSIONS

Chapter I. BACKGROUND

NATIONAL HEALTH CONSCIOUSNESS AND NEED

Behind the growing demands for health legislation is a heightened consciousness of the Nation's health problem. The war just ended has served to bring home to more people than ever before the need for adequate medical and dental care. The importance of economic factors to medical care has become evident through recent health statistics available from the Nation's experience during the war years. Selective service findings concerning the physical and mental health of men of draft age have shown that over 4½ million young men were unfit for military service to our country in its emergency. Forty-three percent of all registrants examined between April 1, 1942, and December 31, 1943, were rejected because of physical or mental deficiency.[1] A shortage of medical and dental personnel in many areas during the last few years has made many people more acutely aware of a need for adequate health service.

Public opinion has been crystallizing around prepayment plans or health insurance as a solution to the problem of providing more adequate medical and dental care in the future. A poll of public opinion conducted by the National Opinion Research Center indicates that 68 percent of those interviewed, a representative cross section, think it would be a good idea for social security to cover doctor and hospital care.[2] The wide acceptance of the health-insurance principle has resulted from a growing realization that medical and dental care is inadequate for large numbers of people. This inadequacy appears to be due in large part to the high cost of medical care. The experiments described here attempt to ascertain the value of tax-assisted voluntary health insurance. The findings indicate the value of this approach but certain inherent weaknesses were uncovered. In the same opinion poll 81 percent of all those interviewed thought there were some people who couldn't afford to see a doctor as often as they should.[3] Such an answer indicates that a fairly large share of medical need goes wanting from year to year. Infant mortality is unnecessarily high in many areas. A survey made in 1943 of 118 families included in membership of the Taos County health association (one

[1] Physical Examinations of Selective Service Registrants During Wartime, Medical Statistics Bull. No. 3, Selective Service System, Washington, November 1, 1944, table 3, p. 12.
[2] What Do the American People Think About Federal Health Insurance? National Opinion Research Center, University of Denver, Special Report, October 1944, p. 3.
[3] Ibid, p. 2.

of the associations analyzed in this report) revealed that one in five persons interviewed stated there had been deaths in the family because of lack of medical care, before they joined the health association.

Students of health have pointed out for some time that decrease in mortality and morbidity rates has been more rapid in the cities than in rural areas, and accumulating evidence shows that the hitherto relatively favorable health situation of rural people is changing to an unfavorable one.[4] Other indications of the unfavorable health conditions among rural people are shown by rates of Selective Service rejections by occupation (table 1). Among farmers and farm managers the rejection rate was 56.4 percent. The rejection rate for farmers and farm managers was followed closely by the rate of 52.8 percent for farm laborers and foremen. Only two other occupational groups, domestic service workers and emergency workers and the unemployed, showed rates in excess of these.

Farmers themselves are becoming increasingly conscious of their health needs. In an effort to learn what farmers were thinking about the current farming situation and postwar possibilities, field interviewers visited the heads of 613 rural households in 32 widely scattered counties during the spring and early summer of 1944. Over three-fourths stated they would like to participate in some flat-rate prepayment plan to cover the costs of their hospital bills and to cover the costs of their doctor's and nurse's services, and over four-fifths of the farmers said they would favor an increase of public clinics.[5]

TABLE 1.—*Rejection rates per 100 registrants examined by occupation, Apr. 1, 1942, to Dec. 31, 1943*

Occupational group	Rate per 100 registrants
All occupations	42.6
1. Domestic service workers	59.6
2. Emergency workers and unemployed	56.5
3. Farmers and farm managers	56.4
4. Farm laborers and foremen	52.8
5. Service workers, except domestic and protective	49.1
6. Laborers, except farm and mine	46.6
7. Proprietors, managers, and officials, except farm	46.4
8. Protective service workers	42.7
9. Professional and semiprofessional	42.2
10. Craftsmen, foremen, and kindred workers	40.7
11. Clerical, sales, and kindred workers	37.5
12. Operatives and kindred workers	37.2
13. Students	25.7
14. Other	44.5

Source: Physical Examinations of Selective Service Registrants During Wartime, Medical Statistics Bull. No. 3, Selective Service System, Washington, Nov. 1, 1944, table 3, p. 12.

Health situations in rural areas serve to emphasize the general health problem in America because of several obstacles in the path of progress toward better rural health. (See fig. 1.) Among these are the shortage of hospitals, physicians, and dentists, the great distances between trading centers where physicians and hospitals are usually

[4] See the Statistical Bulletin, Metropolitan Life Insurance Co., vol. 24, No. 12 (December 1943), p. 9–10; The Community Institute, Circular No. 8 (September 1944), prepared by A. R. Mangus, department of rural economics and rural sociology, Ohio State University; Medical Care and Health Services for Rural People, Farm Foundation, Chicago, 1944, p. 37–71.

[5] Farmers' Opinions About Postwar Conditions, BAE, U. S. Department of Agriculture (for administrative use), Washington, October 5, 1944, p. 27.

PLATE 1.—More than three-fourths of all farm families had a total income of under $1,500 in 1939. Grandparents often added an additional burden on the already overtaxed family budget.

PLATE 2.—Chronic or catastrophic illness keeps many families constantly in debt.

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located, the sparsity of population in many rural regions, poor roads and lack of autos and telephones, the large number of low-income farm families, and the variability of farm income from year to year.[6]

Physicians have tended to settle in cities, for professional opportunity as well as financial gain.[7] Wealth of a county or State is a dominant factor in the maintenance of favorable ratios between physicians and population.[8] Investigation reveals a strong tendency for physicians, particularly those being graduated in recent years, to establish medical practice in urban places. Physician-population

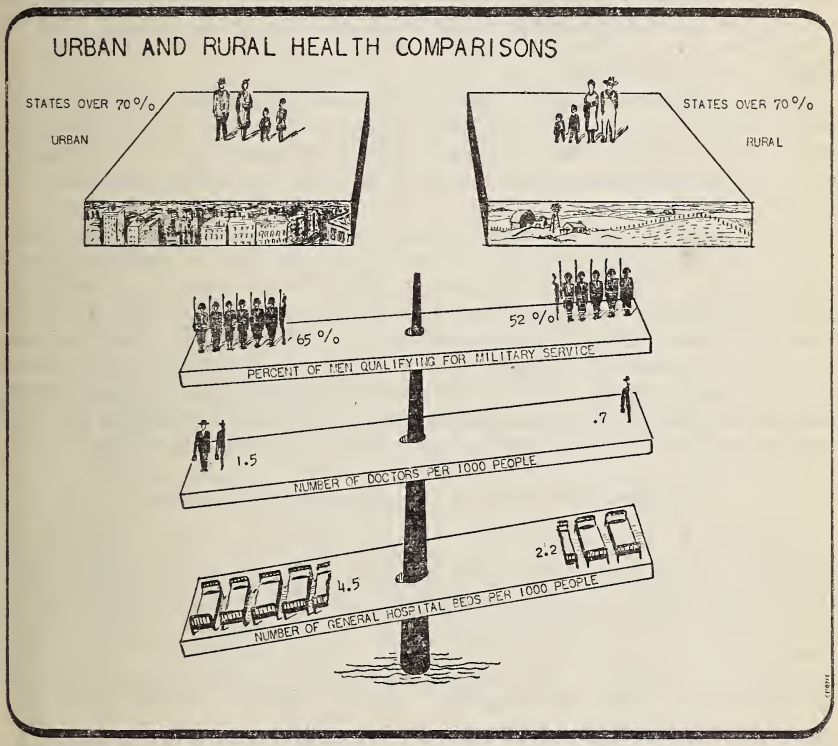

FIGURE 1.—Urban and rural health comparisons.

ratios and the fraction of young physicians were lowest in counties that had no hospitals.[9] The same thing holds for dentists.

Many postwar plans of the various States give some consideration to the health problem. In 1944 preliminary reports on postwar programs were submitted by 46 States to the Secretary of Agriculture; 36 of these contained sections on rural health. Agreement was complete on the fact that farm people are far below par in health services and that something needs to be done about it. Specific recommendations most frequently made were: (1) That health units or centers be

[6] Medical Care and Health Services for Rural People, Farm Foundation, Chicago, 1944, p. 11.
[7] Joseph W. Mountin et al., Location and Movement of Physicians, 1923 and 1938, General Observations, Public Health Reports, vol. 57, No. 37 (September 11, 1942), Reprint No. 2403, p. 5.
[8] Joseph W. Mountin et al., Effect of Local Factors Upon Location, Public Health Reports, vol. 57, No. 51 (December 18, 1942), Reprint No. 2434, p. 9.
[9] Joseph W. Mountin et al., Age Distribution in Relation to County Characteristics, Public Health Reports vol. 58, No. 12 (March 19, 1943), Reprint No. 2465, p. 8.

organized or expanded to meet the needs of farm people; (2) that adequate medical personnel be guaranteed in rural areas; (3) that adequate programs of health education—maternal and child care, accident prevention, sanitation, etc.—be provided; (4) that sanitation equipment and services—school sanitation, public abattoirs, etc.—be provided; and (5) that public health nursing, education and service programs, periodic medical and dental examinations, and comprehensive immunization be guaranteed.

A majority of the reports advocated prepayment plans for medical care or for hospitalization, or for both. Nine States recommended the use of mobile dental units in sparsely settled areas, and a number advocated the purchase of surplus military supplies to improve rural health and sanitation.

Eleven State reports specifically recommended public-works projects of two types: (1) Construction of public buildings—hospitals, clinics, and abattoirs; and (2) construction and improvement of sanitary facilities—malaria control, water supplies, and sewage disposal.

Now that the war has ended, the Nation will soon be faced with a large number of returning physicians, dentists, nurses, and laboratory technicians. Where they will settle is likely to depend on what steps local people take in cooperation with State and Federal Governments to attract medical and dental personnel. Although better organization of present health resources will help, many rural communities, because they contain a disproportionately large numbdr of low-income families, will have to supplement local resources with some form of outside assistance if they are to have adequate health services.

CHANGING PATTERN OF RURAL HEALTH CARE

It used to be that when someone in the family got sick, either home remedies were applied or, in acute conditions, the doctor was called. The doctor usually made home visits and most of his equipment was in his "black bag." This meant that the doctor spent much of his time getting to and from his patients. He necessarily lived in close proximity to most of the families he served and because of this his coverage was often no greater than the rural neighborhood—the smallest group in rural society above the family.

From horse and buggy the rural doctor inevitably shifted to the automobile in his effort to spread his services. It is not surprising therefore that often the first person in the community to own one of the new "horseless carriages" was the country doctor.

But before long many families owned automobiles, and nowadays most visits are made by the patient to the doctor's office or clinic. Good roads and autos are only two of the things that contributed to this new custom. In addition, there is a greater reliance on the physician and a tendency to visit him earlier in sickness. Doctors' offices now require elaborate equipment for expert diagnosis.

As pointed out previously, physicians have increasingly settled in towns and cities. Farm families that formerly went to town mainly to shop and sell their produce now go to see the doctor and get other modern services.

Take an illustration: First settlers of Wheeler County, Tex., could in 1945 drive to town in cars, stop by the cooperative creamery,

trade farm products for feed and seed at their cooperative exchange, stop with their wives at the mechanized laundry and rent equipment which would complete the family wash in a few minutes; attend the weekly livestock auction in a sales barn equipped with grandstand seats, electrical sound devices, and heated on cold days; stop by the cold-storage individual locker plant for needed provisions; visit the hospital for health check-ups and drugs or treatment as members of a prepayment plan, and then reach home in time for a favorite radio program heard on windmill-powered receiving sets.

GROWTH OF A MONEY ECONOMY

The present-day farm family is less self-sufficient than in early times. The farmer buys more of the things that go into family living, and medical care is one of the items that requires an increasing amount of cash outlay if high-grade modern care is to be obtained. In 1944, 81 percent of all typical civilian adults who responded to an inquiry thought there are some people who can't afford to see a doctor as often as they should, and 31 percent said they themselves put off going to a doctor because of the cost.[10]

The doctor himself has been caught up in technological trends that have given rise to the medical specialist, complex equipment, and a need for group medical practice. The growth of clinics and hospitals is one reciprocal effect of these changes. Standardization of medicine has advanced tremendously and is reflected in the elimination of large numbers of small and inferior medical schools and the growth of a few large medical schools. Along with higher standards of medicine have come increased outlays for medical education. The economic factor has become increasingly important not only to the consumer of health services but to the doctor as well. In the process both have come to rely increasingly on organizational efforts, the doctor on professional organizations such as the American Medical Association, American and National Dental Associations, and related organizations, the consumer on public agencies and private organizations.

DIFFERENCES IN HEALTH CARE BETWEEN VARIOUS GROUPS

All of these trends are good for society in general and the effectiveness of modern health care has increased tremendously. Unfortunately, all of these social and economic changes have not been going on at the same pace throughout all segments of the population. For instance, there are the differences in use of modern health care between rural and urban people, Negro and white families, North and South, and, perhaps most significant of all, between low- and high-income families. This in spite of the fact that actual health needs are greatest among disadvantaged people.

One rallying point around which support for any health program can be mustered is the obvious desirability of bringing health services of equally high standards to all the people. The growing recognition that health is not only an individual problem but of major concern to the entire community is a major change in attitude of people.

Many factors interact to determine whether one group of people receives or does not receive adequate health care. First of all, there

[10] What Do the American People Think About Federal Health Insurance? National Opinion Research Center, University of Denver, Special Report, October 1944, p. 2.

is the traditional behaviour of people in coping with sickness and injury. Families are not prone to drop immediately all their customary ways of dealing with ill health even when modern medical care is readily available to them. This factor goes deeper than personal choice in the matter and may be grounded in the social organization of the people. Most people give first place in their value system to those practices handed down from their predecessors. Particularly is this true in regard to health care. This accounts for the fact that many of the habits of the people are incapable of being explained rationally. But regardless of this they have real significance to local people.

Perhaps as important as any other factor in assuring adequate health service in our present money economy, is the income available to the family. Low-income families are often incapable of paying for adequate health attention and some have had to rely upon charity or public agencies. But it has become progressively clear that the high proportion of families not receiving the quantity and quality of health care possible at present in this country cannot be explained away either by lack of individual initiative or lack of medical need. Actually, 77 percent of all farms in the United States produced less than $1,500 worth of products in 1939 and this may account for much of the inadequate quality and quantity of health services in many rural areas.

In rural areas only 14 percent of births during 1942 occurred in hospitals, as compared to 72 percent in cities. This is mainly due to the absence of hospital facilities in the country, plus the large proportion of low-income families, and to a lesser extent a fear of hospitals. In 1938 the physician-population ratio for the most urban States was 171 per 100,000, as compared to only 80 for the most rural (585 persons per physician, as compared to 1,250 persons per physician).

WHAT PEOPLE ARE DOING ABOUT IT

It is clear that urban families in increasing numbers have been meeting the problem of paying for many health services through group prepayment. The trend toward consumer organization to obtain health care has been well under way in urban areas for about 15 years and was spurred considerably during the depression of the thirties. Responsibility for working out group plans has been shared with some success by both employees and employers in the majority of cases.

The progress of prepayment health service plans has been much slower in rural areas than in cities. But important strides have been made since 1930 in assuring better distribution of medical care among rural people through organized groups. A number of nongovernmental agencies, such as farm organizations, have done valuable pioneering work in the field of rural medical and hospital care. However, the most direct and extensive attack on the problem of providing better rural health services has been made through the Farm Security Administration of the Federal Government. In November 1941 the Interbureau Committee on Postwar Programs, United States Department of Agriculture,[11] called upon the Farm Security Administration, because of its previous experience in setting up prepayment

[11] Before the war this committee was known as the Committee on Post Defense Planning.

plans among rural families, to help develop rural health service programs for *all* farm families. This was conceived as an experiment in applying prepayment medical plans to rural areas.

The plan for setting up experimental health programs for rural people in a few selected counties grew out of the growing consciousness of health needs brought home to many people by the large number of rejections for military service and the acute shortage of health-service personnel during the prewar and war periods. Reports of State land-use planning committees earlier in 1941 had shown a unanimity of concern for the national health as a part of the first line of defense. During the latter part of 1941, but before Pearl Harbor, "tentative plans" were made by the Committee on Postwar Programs to initiate the experiments. Finally, in November 1941, a "plan of organization" was sent to all regional chairmen of postwar planning.

SECURING LOCAL RESPONSIBILITY AND ACTION

An important part of the story is the way in which the experimental health-service program grew out of an expanding recognition of rural health needs on the part of lay and professional leaders. Eventually it resulted in direct action by local people in meeting their problem. This process is particularly important when it is acknowledged that many phases of the program were necessarily planned outside the local community and brought democratically into the community. Figure 2 diagrams the steps taken in the process of developing experimental health-service programs, from discussion to action stage, by rural people and their leaders.

County agricultural planning committees, for some time before 1941, had been concerned with drawing up county plans as a preliminary step in solving local problems. This action was a part of a broad planning program instituted by the Department of Agriculture to secure farmer opinion and cooperation on vital problems. Among the many problems recognized by these committees, rural health stood out as one of the most important. County recommendations were submitted from county to State agricultural planning committees as the first step in the planning procedure.

The second step was taken when the State agricultural planning committees recommended to the Secretary of Agriculture the establishment of health service programs and the extension of county public health units into additional counties. The Interbureau Committee on Postwar Programs, charged with the responsibility of meeting the problems of adjustment which would face farmers in the postwar period, then set in motion a program designed to select counties for the experiment and to enlist local people in a program for action in meeting their health problem. Through regional postwar planning committees, discussions were held with State agricultural planning committees in regard to contemplated experimental health programs and then with selected county agricultural planning committees. Plans and reports of health needs in the counties were sent next to the State committee for consideration.

County agricultural planning committees, functioning through health subcommittees, carried on a program of public information and discussion in order that the people might understand the proposed experimental program and help shape it to their local needs. This

was done primarily through public meetings at the county seat and in the various rural communities of the county, and through newspaper publicity, letters to farm people, personal contact, and enlistment of professional leaders, such as doctors, teachers, ministers, and priests to inform the people. This often led to formation of several community committees throughout each county to represent rural families and help carry through a plan.

The procedure just summarized successfully set in operation six health associations between July and November 1942. The seventh

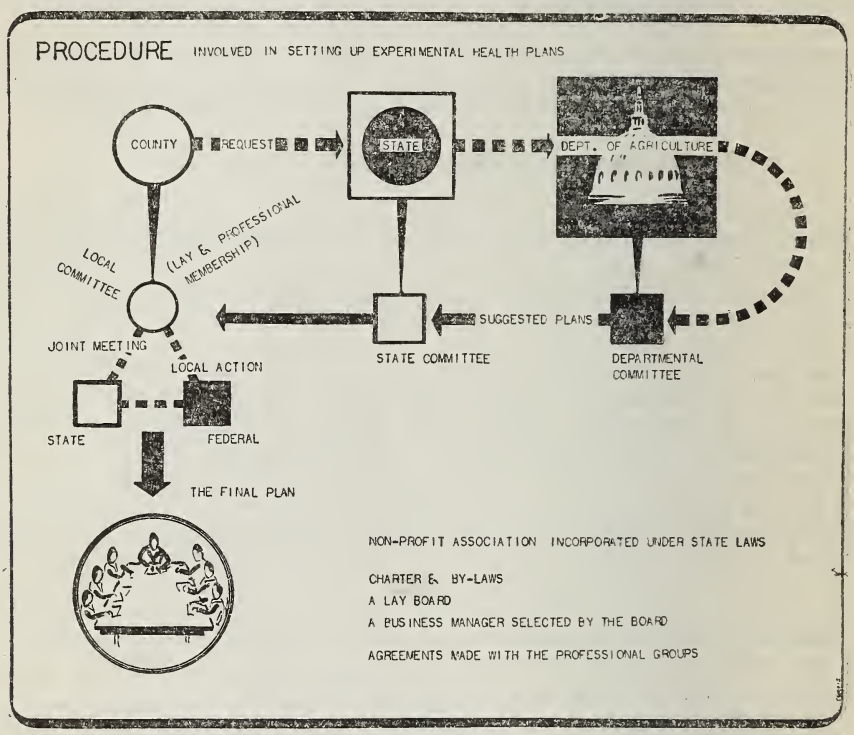

FIGURE 2.—Procedure involved in setting up experimental health plans.

program—the Taos County plan [12]—grew out of an experimental adult-education project, formed in April 1940, under auspices of the University of New Mexico and the Carnegie Foundation. This plan was basically similar to the land-use planning program of the Department of Agriculture. The main objective of both agencies was conceived as a cooperative enterprise among all agencies and organizations in the county, public and private, to bring about a concerted, coordinated attack upon the varied problems.

[12] Major responsibility for this program has always been assumed by Farm Security Administration and not the Interbureau Committee on Postwar Programs. It has been included in this report because it provides opportunity to study a salaried type of organization in contrast to the fee-for-service type of plan. Taos County may be referred to as an experimental county in the remainder of the report.

Chapter II. TAX-ASSISTED LOCAL VOLUNTARY HEALTH ASSOCIATIONS

THE COUNTIES SELECTED

Final selection of the counties in which the experimental health program began was guided by the following conditions existing in each county:

1. An active county agricultural planning committee or similar local organization.
2. Known local interest in medical care needs.
3. A rural county representative of the general area.
4. Farm income approximately the same as the State as a whole.
5. Medical, dental, and hospital facilities reasonably adequate and accessible to all farm families in the county.
6. Receptive attitude on part of professional groups.
7. Desirable: A full-time public health unit.

The seven counties [1] reasonably meeting these requirements included: Cass County, Tex.; Hamilton County, Nebr.; Nevada County, Ark.; Newton County, Miss.; Taos County, N. Mex.; Walton County, Ga.; and Wheeler County, Tex. (fig. 5).

All of these experimental health associations began operations during 1942. Taos County was not chosen on the basis of these requisites because of its more or less spontaneous growth out of an adult education program. However, it met all the stipulated requirements fairly well. First to get under way, on July 1, was the Wheeler County Rural Health Service. Then the Newton County Rural Health Services Association, Inc., began operation on August 1, followed by the Cass County Rural Health Service and Hamilton County Medical Aid Association both beginning on September 1. Nevada County Rural Health Services Association, Inc., started September 15. The Taos County Cooperative Health Association started October 1. Finally, the Walton County Agricultural Health Association, Inc., began on November 1, 1942.

Another health-services program in six counties of southeast Missouri began its operations concurrently with the ones listed above. Because its activities were not studied, a description of this service is not included in this report.

Table 2 shows that five of the counties selected for the experiment tend to have a higher rural level-of-living index than the States in which they are located, but five of the seven counties are below the national average. However, all but 2 of the counties are within 15 index points of their respective State figure and two counties are within five index points.

[1] Because of limited Federal-grant funds to help finance the experimental health program it was necessary to limit the number of counties. Other counties, in other sections of the United States, might reasonably have been included if sufficient funds had been available.

TABLE 2.—*Rural level-of-living indexes for the experimental counties compared with respective State indexes, 1940, (U. S.=100)*

	County	State		County	State
Cass (Texas)	82	99	Taos (New Mexico)	35	67
Hamilton (Nebraska)	123	119	Walton (Georgia)	85	73
Nevada (Arkansas)	78	74	Wheeler (Texas)	110	99
Newton (Mississippi)	84	70			

Source: Margaret Jarman Hagood, Rural Level of Living Indexes for Counties of the United States, 1940, BAE, U. S. Department of Agriculture, Washington, D. C,. October 1943. These indexes are based on the principle of using information on a few items which are representative of many others to provide a measure of average level of living for rural families in each county.

Cass and Nevada Counties are typical of the southwestern plantation area, settled by people from the Old South. It is predominantly a cotton economy, with some oil fields and scattered lumbering. Incomes are relatively low and tenancy runs over 50 percent. Newton and Walton Counties are characteristic of the southeastern plantation area, with a high percentage of Negroes, and are dominated by cotton culture. Wheeler County, on the High Plains, is fairly representative of the cotton-range-livestock area of the Panhandle of Texas, settled mainly by people from the Old South and the border. It has a fairly high level of living. Taos County is characteristic in many ways of the Spanish-American area with dependence upon grazing and irrigation. The level of living is very low. Finally, Hamilton County is a Corn Belt county, which was settled mainly by New Englanders and the foreign-born. It has a relatively high level of living.

DESCRIPTION OF HEALTH ASSOCIATIONS

The device used by the people of each county to get for their families more adequate medical and dental services was a health association based upon the following principles:

1. Prepayment for health services, or the health-insurance principle based on pooling risks and resources of the group.
2. Family contributions based on ability to pay.
3. Supplementation of membership fees by use of Federal-grant funds.
4. Voluntary membership.
5. Local administration of the program.

Furthermore, the organization of these associations was fairly uniform throughout all seven counties, the major difference being in the method of paying for services. Examples of associations typifying the three principal ways of paying the practitioner are presented in part II. Five of the health associations paid for professional services on the conventional fee-for-service basis. An example of this kind of health association is the Nevada County Rural Health Services Association, Inc. The Wheeler County Rural Health Service operated on the capitation basis for general practitioner care, i. e., families are allowed to select a physician who is cooperating with the association and a flat monthly sum is paid to the physician to "keep the family well." The Taos County Cooperative Health Association operated with a salaried medical, dental, and nursing staff.

TYPE OF ORGANIZATION

Local consumers of health services were organized into nonprofit corporations under the laws of their respective States. (See fig. 3.) Each association adopted a charter and bylaws and elected a lay board of directors. The governing board selected a manager and treasurer to execute the program and to make and carry out agreements for medical and dental services with local physicians, dentists, druggists, nurses, and hospitals. Services were provided by independent private practitioners in all but the Taos County plan, where there is a salaried

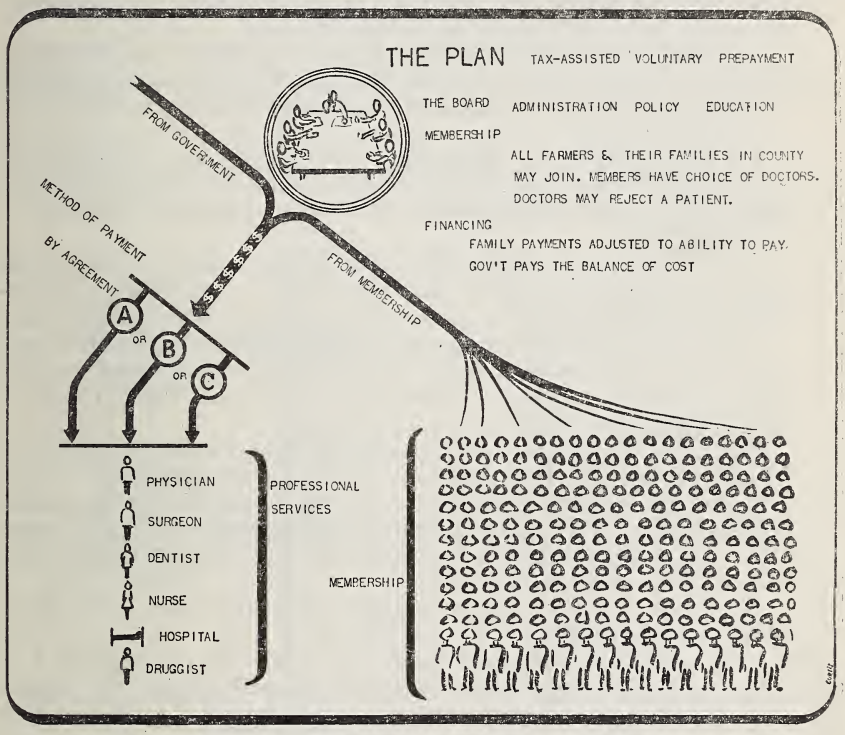

FIGURE 3. The plan.

medical, dental, and nursing staff, supplemented by local practitioners.

FINANCIAL ASPECTS

Each family paid a membership fee based on its net cash income [2] for the year before, with certain fixed minimum and maximum fees. Estimates on the annual cost of service per family were made by the board of directors, after consultation with local professional groups who were cooperating in the program, and this served as the basis for anticipating the over-all costs of the group plan. The amount settled upon varied by association from $36 to $57 for the first year, or averaged about $50 for all associations, and from $41 to $51, or

[2] Formula in Taos was based on gross income.

averaged $48 for the second year of operation. Any family membership fee not sufficient to pay the over-all cost was supplemented by grant funds from the Farm Security Administration. This came to 81 percent of total funds the first year and 62 percent the second year of operation.

SCOPE OF SERVICES AND PROVISION FOR PAYMENT

Services provided directly through the health associations included:

(1) *General practitioner care.*—Including office, home, and hospital calls; prenatal and postnatal obstetrical care and delivery; examinations and limited laboratory services.

(2) *Surgeon-specialist service.*—Including major and minor operations, fractures and anesthesia with limitations on elective surgery in some cases and limited provisions for specialist care outside the county.

(3) *Hospitalization.*—Including room service not to exceed 15 days, anesthesia, X-ray examinations, routine laboratory procedures, nursing service, operating room, and obstetrical service on a limited basis.

(4) *Dental care.*—Including extractions, amalgam alloy and synthetic porcelain fillings (Hamilton County excepted), prophylaxis, treatment of gums, X-ray photographs, and examinations.

(5) *Drugs.*—Prescribed or dispensed by physician; at first provided full payment but later in the first year changed to half payment and eventually eliminated in all but Taos, Wheeler, and Walton associations.

(6) *Nursing service.*—Full-time graduate nurses on duty in health centers in Taos County, made home calls also. Cass, Nevada, and Walton paid for the services of public-health nurses, supplementing the regular public-health programs in those counties. Hamilton, Wheeler, and Newton were without the services of a public-health unit.

(7) *Other services.*—Taos County plan provided ambulance service and eyeglasses.

The range in distribution of funds for six of the associations [3] to cover the cost of various types of services for the first and second years of operation is shown in table 3. The funds allocated in this manner to the different types of services (except contingent and administration funds) were then divided into 12 equal parts, one part to be paid each month during the year. Such monthly allotments were then applied against charges for professional services rendered during the month. Bills were submitted by the professional people (except in the Wheeler County association, which was on a capitation plan, and Taos County association, which had a salaried medical staff) and if the funds available were adequate to cover the charges, they were paid in full and surpluses were carried to the end of the year. (See fig. 4.) If bills exceeded funds available, they were paid on a pro rata basis. Balances unpaid at the end of each month were carried over until the end of the year at which time any surplus funds were usually applied on them.

[3] The Taos County Cooperative Health Association, served by a salaried medical and dental staff, did not use this method of allocating funds.

TABLE 3.—*Range in amount of money allocated by health associations [1] to different types of services, 1942–43 and 1943–44*

Service	1942–43	1943–44
General practitioner	$16–$22	$16–$19
Surgeon-specialist	6	6– 7
Hospitalization	8– 12	9– 12
Drugs	5– 7	0– 6
Nursing	0– 3	0
Dental	6– 7	0– 7
Contingent [2]	0– 3	0– 3
Administration	2– 4	3– 5
Total	50– 57	41– 50

[1] Does not include the Taos County association since it operated with a salaried staff and this made strictly comparable allocations by service impractical. However, over-all costs were $35.59 in the first year and $51.48 in the second year of operation.

[2] A contingent fund was used in some programs to correct for inadequate budget estimates.

Source: Health Services Division, Farm Security Administration.

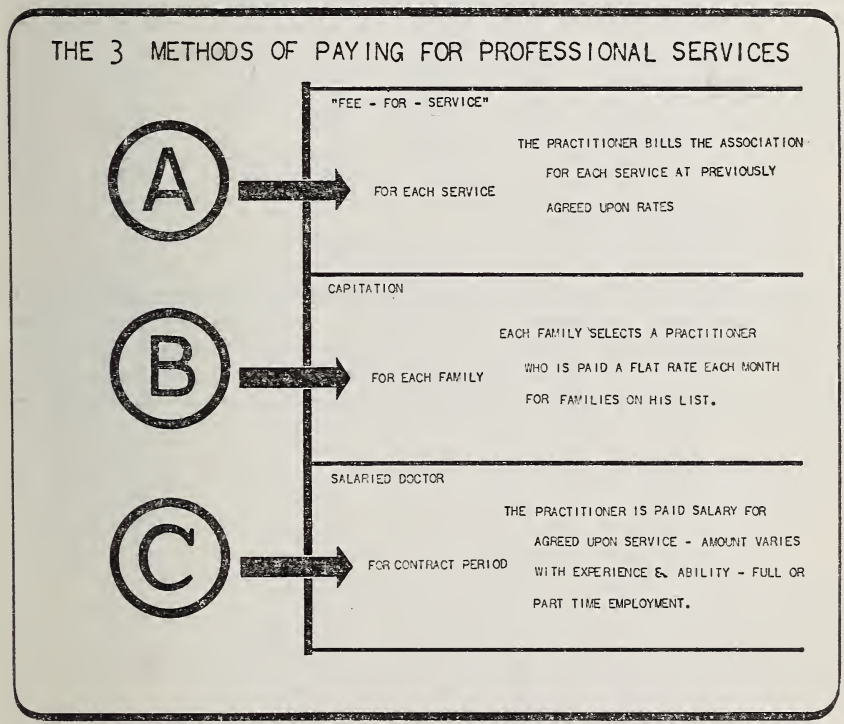

FIGURE 4.—Three methods of paying the doctor.

In the Wheeler County association during the first year the physicians provided drugs as well as physicians' services, and elected to be paid on the capitation plan. Accordingly, funds for these services were pooled and paid out at the end of each month on the basis of the number of member families for which each physician was responsible. Members were allowed to select the physician to be responsible for their medical service on a monthly basis. The Taos plan provided for full- or part-time physicians and dentists and full-

time salaried nurses. Hospital services in all associations were rendered on the basis of a previously agreed upon schedule of charges.

MEMBERSHIP ENROLLED

All families who obtained most of their livelihood from farming were eligible for membership. Membership in the 7 health associations covered 9,287 families, or 41,700 persons during the first year of operation (table 4).

TABLE 4.—*Membership of health associations at end of first and second fiscal years*

County	Fiscal years				Percentage change	
	1942–43		1943–44		Families	Persons
	Families	Persons	Families	Persons		
Cass (Tex.)	2,379	10,301	1,765	8,384	−25.8	−18.6
Hamilton (Nebr.)	478	2,077	(1)	(1)	(1)	(1)
Nevada (Ark.)	1,438	6,350	1,179	4,622	−18.0	−27.2
Newton (Miss.)	1,985	8,972	1,780	7,909	−10.3	−11.8
Taos (N. Mex.)	1,145	5,935	1,145	6,103	0	2.8
Walton (Ga.)	881	4,031	692	3,039	−21.4	−24.6
Wheeler (Tex.)	981	4,034	432	1,776	−56.0	−56.0
Total	9,287	41,700	6,663	31,833	−28.2	−23.7

[1] Operations terminated at end of first year.

Source: Health Services Division, Farm Security Administration.

During the second year membership had fallen to 6,663 families, or 31,833 persons, a decrease of 28.7 percent. Average membership per association, however, dropped from about 1,300 families, or 6,000 persons, in 1942–43 to about 1,100 families, or 5,300 persons, in 1943–44. One association discontinued operation after the first year.

CHAPTER III. EVALUATION OF THE TAX-ASSISTED VOLUNTARY HEALTH ASSOCIATIONS

UNIQUE CHARACTER OF THE HEALTH ASSOCIATIONS

In a number of aspects these experimental health associations are unique in the United States. They are among the first attempts to place membership contributions on the basis of ability to pay rather than fixed fees based on purely actuarial facts. The tax-assisted feature has recently been introduced into rural areas to assure medical diagnosis and treatment. Soon after the Farm Security started, poor health and physical disability were recognized by supervisors as concomitants of economic failure. From a limited number of medical care units throughout the country to provide rehabilitation families with medical aid, the program grew rapidly until 1942, at which time the largest number of active medical and dental units were in operation in 43 States. Families participating in the medical associations numbered 111,468; 33,045 families were covered by separate dental programs. Most of the families were made up of rural rehabilitation borrowers but also included families in other FSA categories such as tenant purchase and resettlement project families. On some resettlement type projects tax-assisted voluntary programs were established. The experimental health associations were an attempt to extend the benefits of prepayment plans to all farm families in the county regardless of income status.

There have been other attempts to bring medical care to farm families through a prepayment plan on a private, cooperative basis, such as the Farmers Union Hospital Association of Elk City, Okla. But with the exception of the FSA experience there have been but few attempts to pool the funds or resources of private individuals in rural areas with funds from general revenues of Government.

The experiment was based on these assumptions:

1. That the extremely low quality and volume of health services in many rural areas of the United States was generally recognized by lay and professional people, and consequently something must be done to bring health services for rural families more nearly in line with nationally accepted standards of medical and dental practice.
2. That in any attack on the problem the economic barrier must be recognized as one of the most influential limits to rural health services, hence any plan must include adequate provision for meeting the money problem.
3. That major responsibility for carrying out the health plan would have to be assumed by farmers and professional groups in the county and consequently the whole plan required the development of local organization with the assistance and guidance of "outside" technicians trained in public health problems.

The results of such an experiment should go far in answering the important question: How effective is a tax-assisted local voluntary prepayment health plan, in which the economic barrier has been at least partly overcome, in assuring complete coverage of the population and high quality medical and dental services?

PUBLIC OPINION

Interviews with a representative group of rural families in each experimental county—members and nonmembers—showed conclusively that local people liked the way the health associations operated and the services provided. Table 5 summarizes briefly this material county by county. Even among those few who opposed the associations for personal reasons, many admitted that it was a good thing for the community or county. Public opinion in neighboring counties also was favorable to the health programs, expressing itself in a desire of families to become members, or in some cases to develop separate plans.

TABLE 5.—*Public opinion in regard to the health associations*

County	Members	Nonmembers	Persons interviewed	
			Members	Nonmembers
Cass	Almost all favorable	Almost all favorable	91	146
Hamilton	Most were satisfied	Most were favorable, no active opposition.	25	(1)
Nevada	Almost all favorable	Almost all favorable	118	203
Newton	All satisfied with program and feel they have a voice in it.	Most were favorable	120	40
Taos	All but 2 thought it was good.	Most felt it was good	119	(1)
Walton	Members were "sold"	Generally favorable	89	(1)
Wheeler	All favorable	Almost all favorable	54	99

[1] Number unknown.

In talking to farmers about the purpose of the program, one would often hear statements such as:

"* * * to help poor people."
"* * * to help people who can't afford medical care."
"* * * to help common folks get medical care."
"* * * to provide equal medical care to all."

Farmers generally thought of the program as a means of bringing health services to families who otherwise might not get them. Often people mentioned the fear of having to go into debt to pay medical bills. One member put forward such a viewpoint when he said, "Before the association, a fellow, when he had to have an operation, would have to borrow the money and then he was in debt." Some expressed their views in terms of the feeling of security it gave when they knew their medical bills were paid in advance. Others thought of the health plan as health insurance (the principle of insurance is not new to most rural families in the counties under observation; in the southern counties, burial insurance is widespread and the people of all the experimental counties were acquainted with Farm Security Administration medical prepayment plans among low-income families

which operated before and at the time of the organization of the health associations). Much of the newness of group health plans had been worn off by these background factors.

A significant readiness to accept health services in a way comparable with public education was also noted in most of the experimental counties; it was particularly strong in Wheeler County. This idea was expressed by an upper-income farmer as follows: "People couldn't get along and run and pay for their schools by themselves; so it may be about like that with organizations for maintaining health among rural people." It is an easy transition for those with such attitudes to accept supplementary public funds for health on the basis of need, just as is now being done in some instances in public education. In fact, one of the outstanding observations which can be made concerning the health associations is the almost complete lack of opposition to use of "outside" or Federal funds. In Wheeler County, for instance, only 5 percent of a sample of 153 members and nonmembers opposed permanent Federal aid to the local health association when questioned directly.

Members and nonmembers alike were overwhelmingly in favor of membership fees based upon family income, or "ability to pay." This principle had wide acceptance in all seven counties and no doubt touched one of the important elements in the value system of rural people.

The three most important principles of operation, or social mechanisms, by which the health programs were developed—(1) prepayment or health insurance, (2) fees based on ability to pay, and (3) Federal financial assistance—were readily accepted by rural people. Furthermore, the people of the seven counties indicates an encouraging capacity to accept responsibility for the operations of the group health organizations. A major step along the road to adequate rural health services was taken by rural people when they organized to secure health services.

ATTITUDE OF PROFESSIONAL GROUPS

Practically all practitioners, hospitals, druggists, and dentists in each county, cooperated during the first year of operation, but opinions of physicians, dentists, druggists, and hospital management began to crystallize pro and con after a brief period of operation. Friction and strong competition among the professional persons, for which the association was not directly responsible, became acute as the program progressed and these conditions hindered smooth functioning of the professional organization. Table 6 indicates summarily the rather wide divergence of professional attitudes regarding the health associations.

Generally, dentists were more favorable to the health plans than physicians or druggists perhaps because dental bills were usually paid in full. Professional criticism centered more often on the inability of the plans to pay in full for services rendered. State medical associations in most instances withheld acceptance or rejection of the plans but usually became either more passive or actively opposed to the associations.

TABLE 6.—*Attitudes of professional groups toward the experimental health association*

County	Physicians	Dentists	Druggists	Hospital management
Cass	Varied from strong approval to bitter opposition; president of local medical society very favorable.	All highly favorable.	Indifferent or opposed to program.	Related to attitudes of doctors.
Hamilton	Favorable as a low-income family program, supplementing private medicine.	Favorable to it as a low-income program, supplementing private practice.	Indifferent or opposed.	Do.
Nevada	All favorable to the program; president of local medical society very strong supporter.	Highly favorable	Pleased with it on 50–50 basis; would like to see it restored.	Do.
Newton	All enthusiastic about program.	Full accord with program.	Looked on with favor if all bills are paid.	Cooperative.
Taos	All in favor at first; later 1 opposed.	Favorable	Opposed or indifferent.	Very cooperative.
Walton	Favorable, in general; 1 physician withdrew from program.	do	Favorable at first but not when payment was inadequate.	Enthusiastic.
Wheeler	All favored at first; internal strife among physicians caused some doctors to break away.	do	Opposed	Related to attitudes of doctors.

LOCAL RESPONSIBILITY AND ORGANIZATION

Local farm men and women provided the necessary leadership for informing the people about the program, taking action on forming the organization, formulating operational policy and, finally, directing the program. Community organization was mustered into action in each county and constituted the greatest single force in bringing the associations into being. Local farm leaders did most of the "leg work" in their respective communities in mobilizing community action and getting people to join. County leaders who assumed much of the responsibility for development of the program were mainly farm men and women of high standing in the county and community, who had a broad base of support from the people of their county, whether members or nonmembers. Every one of the directors gave voluntarily of his time and effort in the developmental phase and especially during the period of operation.

NONLOCAL LEADERSHIP

Action in most social fields is dependent not alone upon local leadership and organization but also on effective outside professional and lay leadership who understand local problems and needs and help to bring outside technical knowledge and resources to the community. County professional leaders, such as Farm Security supervisors and extension agents, were important links between farm people and State-Federal administration. Regional FSA health specialists and State-extension specialists, working together gave technical assistance and guidance in the development of each association and thus assured a degree of standardization in all of the associations that otherwise would have been lacking. Technical details of administration were handled directly by medical and dental officers attached to the Federal office of Farm Security Administration.

PROGRAM COVERAGE

A liberal interpretation of eligibility was usually applied by boards of directors in passing upon applications for membership. Membership was open to all farm families, including farm laborers' families, living in each county. One good test of the effectiveness of the plans is the proportion of farm people who voluntarily took out membership in the associations. (See fig. 5.) A second test is the extent to which the associations have been able to hold members from year to year.

During the first year of operation membership in all health associations comprised half the farm population of the counties (table 7). Eligible population is assumed to be rural-farm population as of January 1942 estimated on the assumption that the percentage decrease between April 1940 and the later date in the rural-farm population of the specified county was the same as the percentage decrease in the total farm population of the State for the same period. Farm laborers also were eligible for membership but were not considered in these estimates. For the latter reason, it is presumed that percent of population covered is actually lower than indicated in table 7 although the actual amount is not known. Range in coverage varied from 32 percent in Walton County to 74 percent in Wheeler County; four counties fell under 50 percent and three ran over. During the second year membership made up 45 percent of the farm population, or 5 percent lower than the first year. This relatively slight difference in coverage represents the difference between the number of members who dropped out at the end of the first year and new members in the second year of operation. Range in coverage for the second year varied from 27 percent in Walton County to 74 percent in Taos County.

TABLE 7.—*Percent of farm population* [1] *covered in membership of the experimental health associations during 1942–43 and 1943–44*

County	1942–43	1943–44	Difference between 1942–43 and 1943–44
	Percent	*Percent*	
Cass	49.4	46.6	−2.8
Hamilton	36.8	(2)	(2)
Nevada	48.2	37.4	−10.8
Newton	59.9	49.9	−2.0
Taos	65.4	74.3	8.9
Walton	32.2	26.6	−5.6
Wheeler	[3] 74.4	37.6	−36.8
All associations	49.7	45.1	−4.6

[1] Based on estimates made on the assumption that the percentage decrease between April 1940 and each of the later dates in the rural-farm population of the specified county was the same as the percentage decrease in the total farm population of the State for the same period.

[2] Operations of Hamilton County association terminated at end of first year of operation.

[3] Wheeler County association membership included a large number of out-of-county families in 1942-43 because it was based upon the medical trade areas of Wheeler and Shamrock. This accounts for the relatively high coverage during the first year.

The membership of all but one association, namely Taos County, was smaller during the second year. Population coverage during the 2 years has been stable, or growing, in only three counties, assuming a change of less than 5 percentage points as indicative of stability. The large decrease of more than one-third in the membership of the Wheeler County association can mainly be accounted for by the withdrawal of some of the first-year physicians from the program. This

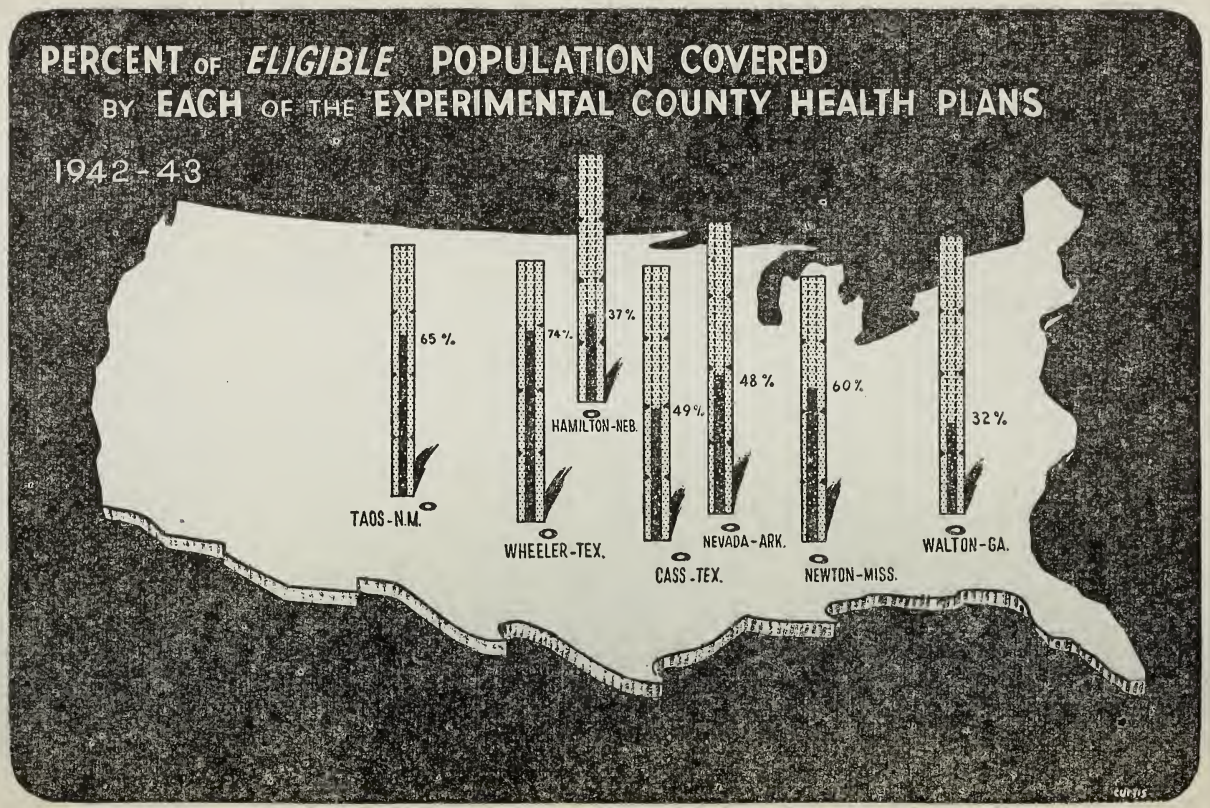

FIGURE 5.—Percent of eligible population covered.

meant that under the capitation plan their clienteles could not receive service, unless they changed physicians. Hamilton County association terminated operations at the end of the first year because local doctors refused to cooperate further in the program.

REASONS FOR CHANGE IN MEMBERSHIP

Such changes as have been indicated take no account of the significant number of families who discontinued membership at the end of the first year and the significant, although smaller, number of families who joined for the first time during the second year. For example, the Cass County association had a total membership of 2,379 families during 1942–43. About 1,100 of these families failed to renew their membership during 1943–44, for one reason or another. But about 1,300 families, or 55 percent of those who held membership in the first year, did renew their membership in the second year plus about 500 new families. Although it is true that many more individuals have received at least some of the benefits of health services rendered by the associations at one time or other than is shown by the statistics for any one year, they have not been covered for the entire period of operations.

Considerable discontinuance in membership has been caused by the extensive migration of people out of the counties as a result of the war. It is estimated that the net population decrease between January 1942 and January 1943 in the six counties in which health associations operated for 2 years was about 10 percent, which does not take into account the inmigration during the same period.

Trying to get at the various other reasons why first-year members did not rejoin, a sample of former member families were asked to give their reasons for not rejoining. By far the largest number reported that high membership fees were the main reason. In other words, in the opinion of the families, the economic barrier continued to operate even though the program was supplemented with Federal funds. Perhaps the next most important reason was indifference or neglect.

WHY SOME FAMILIES DID NOT JOIN EITHER YEAR

Reasons for incomplete coverage of the population in the health programs are much more difficult to ascertain for that segment of the population which, for one reason or another, never joined. A statistically representative sample of nonmember families interviewed in Nevada County revealed that by far the largest number, almost a third, said they just neglected to join; these data are confirmed by the Cass and Wheeler Counties studies. The money question was mentioned as the next most important hindrance to membership in the same counties.

Back of the large numbers of families who said they "just neglected to join" are several sociological factors that may account for some of the incomplete coverage. In the first place, it is customary for many families, particularly upper-income families, to go outside the counties for their medical and dental care, and they have little inclination to change to local services. There are other families, again mostly in the upper-income brackets, who feel it below their standing to take

part in what may generally be assumed to be a "poor man's" program.[1] Many thought of the programs as applicable only to families who could not pay their own medical and dental bills.

In some instances the physicians, dentists, and druggists discouraged many of their better-pay patients and customers from joining. As time went on most people developed definite ideas as to what groups of people the health program was intended for and, generally, it was actually looked upon as a program only for low-income families.

Out of such attitudes grew definite ideas about who should and who should not belong to the association. Even though doctors were prone to distinguish in their own minds between members and nonmembers there is no conclusive evidence that widespread differences in standards of care were applied to the two groups. However, this tendency to make group distinctions was probably instrumental in keeping many families from joining. It is not surprising therefore that the programs were generally made up of low-income families whose average net cash income in 1941 was under $200 in five of the seven counties, and in no county did the average net cash income exceed $500 per family.

METHOD OF FINANCING THE PROGRAM AND ITS EFFECT ON POPULATION COVERED

The capacity of people to pay for health services is dependent upon the amount of money income of the family but the cost of health services is not a fixed and regularly recurring item in the cost of living of individual families. Sickness may strike at a time when the family is least able to pay for its treatment. However, the medical need of any general population is fairly stable in the aggregate, and thus can be predicted within reasonable limits.

The relatively fixed and predictable nature of demand for health care by a general population justifies the application of the insurance principle. Ability to pay on a group basis is thus dependent primarily upon the average income levels of the groups covered. But the farmers' cash income, even considered as a group, is notoriously low and is characterized by wide fluctuations from season to season. For these reasons the fluctuating level of farm family income makes it impossible for farm families to pay a constant amount from year to year. The economic problem was attacked directly by drawing upon nonlocal funds to equalize membership costs. These funds consisted of Federal grants to the associations. Financing was accomplished in three ways: (1) The ability of the family to pay for its own care was gaged by setting the membership fee as a fixed percent of net cash income of the family during the previous year; (2) Federal aid was extended on behalf of all families who were unable to pay the estimated over-all cost of the health program, this amount being equivalent to the difference between the estimated cost and the family's membership fee; (3) if, at the end of any month, the program had incurred more service charges than could be covered by the allotments, the differences, by previous agreement, were absorbed by physicians, dentists, hospitals, and druggists.

[1] A word of caution: Relatively low incomes prevail generally in rural counties and terms such as "poor," "relief," "indigent," "low income," or "high income," when used to describe people who should or should not belong to health associations have only relative meaning. "Relief" is not the same thing to the farmer in Mississippi as it is to the farmer in Nebraska, and social status is only partly revealed by money income.

The actual cost per family of the health programs averaged about $50 during the first year and $48 during the second (table 8). Of the $50 for the first year, an average of about $10 per family came from membership fees and $40 from the Federal Government. During the second year the family paid an average membership fee of $19, an increase of $9 per family, mainly as a result of raising the minimum fee. (See fig. 6.) The Federal Government contributed $29, a decrease of about $12 per family from the first year. There is marked variation between the associations in average membership fee paid by the families. This is also true for the contribution of the Government as well as the over-all costs. These variations are due mainly to the differences in the ability of the families of each county to pay as a group.

TABLE 8.—*Average membership fee per family and average Federal contribution per family in the experimental health associations, 1942–43 and 1943–44*

County	Average membership fee		Federal contribution per family		Total cost per family	
	1942–43	1943–44	1942–43	1943–44	1942–43	1943–44
Cass	$9.50	$19.64	$40.50	$21.36	$50.00	$41.00
Hamilton	25.47	(1)	31.53	(1)	57.00	(1)
Nevada	7.88	18.39	46.12	26.91	54.00	48.00
Newton	6.06	16.42	47.93	25.43	53.99	41.85
Taos	4.07	13.08	31.52	38.40	35.59	51.48
Walton	11.77	22.69	38.23	27.31	50.00	50.00
Wheeler	21.63	29.90	32.37	12.10	54.00	42.00
All associations	10.16	19.38	40.31	28.79	50.47	48.17

[1] Hamilton association terminated at end of first year.

Source: Health Services Division, Farm Security Administration.

Ability of people to pay for health services on an individual basis is entirely different from the ability of people to pay on a group basis. Professional groups, particularly physicians, often were prone to consider the family's ability to pay for medical services in terms of the average over-all cost of the program and not in terms of high-cost illness that might befall any single family. This opinion often led the physicians and other professional people to discourage middle- and upper-income families from joining associations. If due consideration is given to the possibility that high-cost illness might befall any one of the families in the counties it is reasonable to assume that a relatively high proportion of families in the counties would normally be unable to pay the costs of medical and dental care under a system of individual payment. It may be true, however, that a large majority of families in the experimental counties can and do pay for most of the care they receive, especially in good times.

But the system of individual payment of medical costs is unsatisfactory for at least three-fourths or more of the families since high-cost illnesses or accidents would contribute materially to economic insecurity. Therefore, it is reasonable to assume that families with incomes of less than $1,500 might not be able to meet high-cost illnesses or accidents, and they constitute from 72 to 97 percent of all rural families in the experimental health counties (table 9). This is extremely important in light of the fact that 77 percent of the farms

in the United States had a total value of farm products sold, traded, or used by farm household under $1,500 in 1939.

Average income per farm varied from $307 in Taos County in 1939 to $1,463 in Wheeler County. Such figures indicate not only the cash income available to the farm family but also the value of home-consumed products. Certainly $1,500, by modern standards, is inadequate to provide a family with the necessities of life and on top of that take care of catastrophic illness or accident.

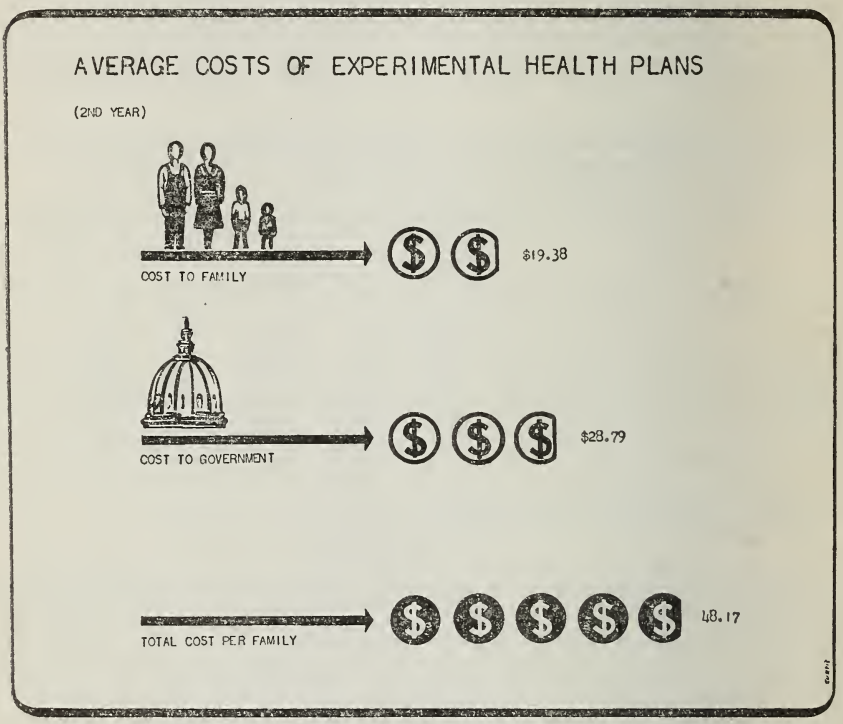

FIGURE 6.—Average costs of experimental health plans

TABLE 9.—*Income per farm in the experimental health counties, 1939*

County	Average income 1939 [1]	Farms with total value, all farm products, 1939, under $1,500
	Dollars	*Percent*
Wheeler	1,463	72
Hamilton	1,209	80
Walton	933	89
Nevada	555	97
Newton	541	97
Cass	495	98
Taos	307	97

[1] Based on United States census, 1940, reporting value of all farm products sold, traded, or used in 1939.

Table 10 shows the rank order of the experimental health counties according to the index of level of living and also their rank in respect to amount of money contributed per family in membership fees for each year. Level-of-living index is a good measure of each county's relative ability to pay for health services. The percentage of funds contributed by the families in membership fees is assumed to be based on the principle of ability to pay. If this principle is effectively applied, the rank order of the counties should be the same for level of living and percentage of funds from the family. Table 10 shows that these two rank orders coincide perfectly for both years.

TABLE 10.—*Rank order of experimental health counties by level-of-living index (Hagood) and according to amount contributed per family in membership fees, 1942–43 and 1943–44*

County	Counties ranked according to—			
	Level-of-living index, 1940	Funds from family, 1942–43	Level-of-living index, 1940	Funds from family, 1943–44
Hamilton	1	1	(1)	(1)
Wheeler	2	2	1	1
Walton	3	3	2	2
Cass	4	4	3	3
Nevada	5	5	4	4
Newton	6	6	5	5
Taos	7	7	6	6

[1] Hamilton County Association discontinued operation at end of first year.

TABLE 11.—*Percent of funds from family membership fees and Federal-grant funds for experimental health counties, 1942–43 and 1943–44*

County	Family membership fees		Federal-grant funds		Total receipts	
	1942–43	1943–44	1942–43	1943–44	1942–43	1943–44
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Cass	19.0	47.9	81.0	52.1	100.0	100.0
Hamilton	44.7	(1)	55.3	(1)	100.0	100.0
Nevada	14.6	38.3	85.4	61.7	100.0	100.0
Newton	11.7	39.2	88.8	60.8	100.0	100.0
Taos	9.8	20.5	90.2	79.4	100.0	100.0
Walton	23.5	45.4	76.5	54.6	100.0	100.0
Wheeler	40.1	71.2	59.9	28.8	100.0	100.0
All associations	19.4	38.4	80.6	61.6	100.0	100.0

[1] Hamilton County Association terminated at end of first year.

Source: Health Services Division, Farm Security Administration.

Although a large part of the money used in financing the health associations came from Federal funds; the proportion from such source declined from 81 percent in 1942–43 to 62 percent in 1943–44 (table 11). Family contributions from membership fees rose from 19 percent in 1942–43 to 38 percent in 1943–44. However, amount of local financial support varied from 10 percent in Taos County to 45 percent in Hamilton County during the first year, and from 20 percent in Taos County to 71 percent in Wheeler County during the second year.

As the families had to bear about twice as much of the total cost during the second year as they did during the first, it is reasonable to expect that coverage might not be as extensive during the second year. Yet in a period of increasing farm income, such as was experienced between 1941 and 1942 (the period for which these data are applicable), it is expected that a higher proportion of total health service costs should be borne by member families. This would have been the case had the fixed percentages been allowed to operate. However, starting with the second year the associations obtained a larger portion of the total money from individual families, through increased minimum membership fees, rather than relying entirely on fees based on a fixed percentage of income.

In effect, such a policy resulted in a regressive fee schedule that forced the lower income families to pay more proportionately than higher income families. This in turn both barred many very low income families from joining and discouraged others.

Membership of the health associations was made up primarily of low-income families. But these families, on the other hand, were representative of the large majority of rural families in the experimental counties. This means that member families tended to concentrate more closely around the average farm family income figure for the county than did all the families in each county. Saying it another way, membership lacked representativeness of the extremes of high-income or low-income families; the high-income people eliminated themselves for cultural and social reasons, the low-income people principally by financial lack.

PATTERN OF HEALTH CARE BEFORE AND AFTER THE HEALTH ASSOCIATION BEGAN

The families themselves usually do the primary work of therapeutic, diagnostic, and preventive health care in the seven experimental counties, helped at times by their neighbors. This basic core of health services includes all folk knowledge about causes and cures of disease, home nursing, patent medicines and home cures, midwifery, and all other home techniques for coping with sickness or accident. Most cases of illness are never seen by the physician in these counties. However, the extent to which folk knowledge is relied upon depends somewhat on the accessibility of scientific medicine, the ability of the family to pay for that service, and the degree to which traditional medicine is "sacred" to the group. Finally, the extent to which modern health education is reaching the community is important. Where lines of communication are well established, family medication may follow the general principles of scientific as well as folk medicine.

The second most important source of care is the general practitioner, most often a regular physician but sometimes an osteopath, chiropractor, cultist, or folk doctor. In terms of the local people in these counties he is the "specialist" because he devotes his entire time to the practice of medicine and knows more about it than anyone else in the community. His leadership and status in the community is accepted. It is not entirely determined by his knowledge of scientific medicine but by endless social, economic, religious, philosophical, and political factors. Modern medical specialists, who confine themselves to various diseases, to anatomical sections of the body, or to age and sex groups, are little known or understood by most people. Surgery

obstetrics, and gynecology usually are handled by the general practitioner. However, the general practitioner is the clearing house between the patient and various medical practitioners and agencies—specialists, nurses, hospitals, and sometimes dentists—whose services he needs. The local practitioner usually serves an area not more than 10 miles roundabout his office or clinic. But, of course, this area depends somewhat on the density of population.

Before the associations were formed, 1942, the 7 counties had a total of 74 physicians. But if age is taken into account there were only 58.6 effective physicians,[2] or 2,261 persons per physician. Such a population-physician ratio compares very unfavorably with the generally accepted standard of not more than 1,000 per physician and the actual United States ratio of about 800 per physician in 1942. Population per effective physician varied by county from 1,377 in Wheeler County to 4,130 in Taos (table 12).

By 1944, the number of effective physicians had fallen to 37.2 and the population per physician went up to 3,117. Only one county, Hamilton, maintained its 1942 force of physicians and consequently had a lower population-physician ratio than formerly. Two counties, Taos and Walton, had more than 5,000 persons per effective physician in 1944.

TABLE 12.—*Physicians, by age, in the experimental health counties, 1942 and 1944*

County	General practitioners [1]						Effective physicians [2]		Number of persons per effective physician	
	Total, all ages		65 years old and under		Over 65 years old					
	1942	1944	1942	1944	1942	1944	1942	1944	1942	1944
Cass	15	10	9	5	6	5	11.0	6.7	3,077	4,219
Hamilton	7	7	6	6	1	1	6.3	6.3	1,377	1,311
Nevada	12	7	9	6	3	1	10.0	6.3	1,874	2,457
Newton	14	11	8	7	6	4	10.0	8.3	2,165	2,436
Taos	5	3	4	2	1	1	4.3	2.3	4,130	6,314
Walton	12	4	7	3	5	1	8.7	3.3	2,339	5,710
Wheeler	9	4	8	4	1	0	8.3	4.0	1,384	2,590
All counties	74	46	51	33	23	13	58.6	37.2	2,261	3,117

[1] 1942 data from American Medical Directory; 1944 data from field visits.
[2] 1 physician over 65 years old assumed to be equivalent to ⅓ effective physician. This does not take into account sick and handicapped physicians.

Druggists supplement the family physician to a great extent, in fact are closely related to the general practitioner. A few rural doctors still dispense their own drugs but the trend seems to be toward dispensing through drug stores, if the community can support them. A rather large number of physicians have some tie-in with one or more of the local drug stores, through either economic interest or family relationship. Drugs or "medicines" bulk large in the rural family's budget for health services, including both patent and prescribed medicines. Home medication relies largely on drugs. There is perhaps greater reliance on drugs than on any other single health measure. Local physicians are likely to accept this fact and from time to time do so against their best medical judgment.

[2] "Effective physician" assumed to be a physician 65 years old and under. A physician over 65 years old is considered to be equivalent to one-third effective. Based on work of United States Public Health Service and utilized widely during the war by Procurement and Assignment.

TABLE 13.—*Dentists in the experimental health counties, 1942 and 1944*

County	Number of dentists		Population per dentist	
	1942	1944	1942	1944
Cass	5	4	6,770	7,067
Hamilton	5	4	1,735	2,065
Nevada	2	2	9,369	7,740
Newton	5	5	4,330	4,444
Taos	1	1	17,759	14,523
Walton	3	3	6,783	6,287
Wheeler	3	2	3,829	5,181
Total	24	21	5,521	5,522

Source: Field Survey by Bureau of Agricultural Economics.

The general practitioner of dentistry fulfills a role quite similar to that of the general practitioner of medicine. In 1942 there were 24 dentists in the 7 counties, or 5,521 people per dentist, compared with 2,100 population per dentist in the United States as a whole in that year. Population per dentist varied by county from 1,735 in Hamilton County to 17,759 in Taos County (table 13). The population-dentist ratio remained constant during the period 1942–44. The dentist usually served people in an area slightly larger geographically than that of the physician. His work consisted primarily of furnishing extractions and dentures, and making fillings, with minor emphasis on specialized fields of dentistry such as orthodontia.

The small general hospital was an important part of the pattern of health care in these counties. Each of the counties included at least one general hospital within its boundaries which served families within a radius of about 25 miles. Hospital beds per 1,000 population increased from 1.8 in 1942 to 2 in 1944, due to a net increase of 4 hospital beds plus a declining population base (table 14). Wheeler County closed its largest hospital during the period.

TABLE 14.—*Hospital beds in the experimental health counties, 1942 and 1944* [1]

County	Number of hospital beds		Hospital beds per 1,000 population	
	1942	1944	1942	1944
Cass [2]	39	39	1.2	1.4
Hamilton	16	20	1.8	2.4
Nevada	25	25	1.3	1.6
Newton	65	65	3.0	3.2
Taos [3]	17	34	1.0	2.3
Walton	17	25	.8	1.3
Wheeler	53	28	4.6	2.7
Total	232	236	1.8	2.0

[1] Includes beds in registered and unregistered hospitals; 193 of the total number of beds in 1942 were in registered hospitals.

[2] Only 1 of 4 hospitals was registered by the American Hospital Association in 1942.

[3] Embudo Presbyterian Hospital just over border of adjoining county used extensively by Taos County families. Taos County also had a Federal hospital for use of Indians only until about 1943 when it was opened to general public.

Source: Field surveys by Bureau of Agricultural Economics.

The physicians were usually in a position to dominate hospital management either through ownership or other means. Hospitals represented satellite services supplementing the service of the general

practitioner and surgeon. However, in recent years greater reliance is being placed upon hospital care, and this has been encouraged by the doctors. This growing custom was particularly noticeable in childbirth cases. Hospitalization made the physician's own services more effective and efficient.

Highly specialized care was remote for most people in these counties. It was more accessible to upper-income white families than other income groups but even so had not developed any clear pattern of use. For most people, health services stopped at about the county level, in the local general hospital.

There are group differences in the pattern of medical and dental care that complicate the problem of health care. For instance, wherever the community makes distinctions, such as between high- and low-income families, or white and Negro, the tendency has been for such distinctions also to express themselves in different standards of care and rates of service for the groups so classified. Such differences in care manifest themselves in such ways as fewer hospital beds for Negroes, separate dental offices with inferior equipment for Negroes, few or no Negro general practitioners, and lower standards of care for low-income families generally because of their inability to pay for high-grade services.

Lower-income families and Negroes rely relatively more upon folk medicine supplied primarily by the family than do either upper-income families or white families generally. Stated reciprocally, this means that upper-income families and white families use physicians, dentists, hospitals, outside facilities, more than do lower-income families and Negroes. However, public health services are necessarily used more by lower-income families and Negroes.

The period during which the health associations were operating reflected the general wartime trends in medical and dental personnel throughout much of the United States. Population per effective physician increased markedly in all but one of these counties; population per dentist increased in a majority of all these counties. In only 1 item, hospital beds per 1,000 population, the trend was for the better. However, in all three indexes of adequacy of medical personnel and facilities—physician, dentist, hospital—none of the counties met minimum standards before or after the advent of the health associations.

SCOPE OF SERVICE

All the plans fell short of providing complete health services during the first year and even more limitations were imposed during the second year of operation. Boards of directors were under compulsion enforced by their knowledge of the paying power of local families to cut the services to an over-all annual cost figure falling somewhere between $50 and $60. In the beginning technical advisers (Federal) suggested minimum and maximum cost figures for the consideration of local boards. But in every instance the minimum figure was accepted by local people. Such a figure was not enough to finance a full health services program.

The attempt was made to provide all services of a general practitioner in all of the plans. Health examinations were not required for entrance, nor were limitations placed on membership such as exclusion of existing conditions at time of application for membership.

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Surgeon-specialist services were given within certain limits imposed by local physicians and customs in each area. None of the programs (except the Taos and Newton plans to a limited extent) made provisions for facilitating the use of specialists from outside the county, and this policy was adamantly maintained by the association physicians. Limitations on hospitalization consisted of a definite specification on the number of days per person (usually 14) which would be paid for by the association during any year. Few changes were introduced in scope of hospital services as time went on, with the exception of cutting the period of confinement for births and restricting hospitalization in births to complicated cases in Cass and Nevada County associations. Dentistry did not at any time include replacement work such as dentures, crowns, bridges, and gold inlays.

At first the plans attempted to provide all prescribed drugs. But the first and only complete break-down in any of the services offered by the associations occurred in drug service, early in the first year. Druggists in most of the counties withdrew their agreement because budgeted funds were not enough to pay for drugs in full. Beginning with the second year all but three of the health associations eliminated drug service. The Taos County association dispensed its own drugs. The doctors in the Wheeler County association dispensed their own drugs. In Walton County the members paid 10 cents per prescription, the balance being paid by, or was an obligation of, the association.

Bedside nursing services were contemplated in all plans but because of a shortage of nurses and lack of recognition of need for family nursing only a minor nursing program was carried on in Cass, Nevada, and Walton Counties. In Taos County, with a health-center type of organization, registered nurses augmented the service of the physicians and were a very important part of the services rendered.

Eye service, including glasses, was available during the first year only in Taos, but refractions had to be discontinued during the second year. Only the Taos County plan included ambulance services for its members.

The obvious over-all gaps in health services were—

(1) Insufficient emphasis on preventive services.

(2) No effective provisions for health examinations, before or after entrance, though they were covered in the benefits of certain plans.

(3) Lack of adequate provision for consultations, laboratory examinations, and referral of patients to outside specialists.

(4) Elim nation of drugs in all but two plans.

(5) Very limited eye services or none at all.

(6) Limited dentistry.

(7) Poor diagnostic and therapeutic facilities.

(8) Generally poor quality of general practitioners.

These limitations and omissions forced many members to find services outside the association. For example: All but 3 of 54 sample member families of the Wheeler County association reported use of health services outside the association during 1943–44. They spent more than twice as much for outside services as they paid in membership fees. One-fourth of the members interviewed in the Cass County study thought drugs ought to be included, about one-fifth thought eye services ought to be included. During the first year, 37 member

families, out of a total sample of 119 member families of the Taos County association, paid an average of $26.29 for outside health services, or 5 times as much as their membership fee.

All these facts show clearly that the associations fell far short of meeting the full range of health services—preventive, diagnostic, therapeutic, educational—that is needed in a broad-gaged plan of care. Such shortcomings were well understood by members but for one reason or another few attempts to broaden the scope of services were made.

HEALTH NEED AND SERVICE RECEIVED

There are two ways to look at health need. One is from the viewpoint of the physician, based on his technical judgment. The other is from the viewpoint of the consumer, based on his understanding of good medical and dental practice. Even though the consumer knows his medical wants he might not be able to satisfy them because of his inability to pay for services. Seldom does the community allow every individual to get the amount and quality of services that best health standards call for. Part of the trouble is that the individual does not know what he needs to assure optimum health, or he may be inarticulate in demanding it. In four of the health associations almost all of a sample of members reported that in their opinion the health service provided by the associations was at least the same or better than that received before they joined (table 15). In Taos County 80 percent of the members sampled reported better health service than before they joined, while in Wheeler County only 15 percent reported better health service than before.

TABLE 15.—*Percent of members in selected health associations who believed health service for their family was better, same, or poorer than before joining*[1]

Quality of health service after joining	Percent of members reporting			
	Cass	Nevada	Taos	Wheeler
Better than before joining	44	40	80	15
About the same	54	60	19	83
Poorer	2	0	1	2
Total	100	100	100	100

[1] Comparable statistical data not available for all health associations.

One of the best indexes of medical need as expressed in technical terms is the rate of infant mortality. This index is sensitive to changed standards of preventive and therapeutic care. Taos County had a long-time average infant mortality rate of 105 compared with average rates under 50 for the other 3 counties analyzed in table 15. The greatest influence on health services, therefore, was felt by members of Taos County where the technical need was greatest. These figures indicate that the Taos plan apparently raised the levels of medical care greatly in this county and to a lesser degree in the other counties. But this does not mean that standards of high-quality modern care have been attained in Taos County. Nor does it mean that the level of care in Taos surpasses that in the other experimental

counties. The reverse may be true as is shown in table 16 where need is expressed by infant mortality rates for total population of each county and the level of medical care as measured by (1) percentage of total births for the county not attended by a physician, (2) percentage of total births in the county outside a hospital, and finally, (3) physician calls per 1,000 population in the membership of the health associations during the first year of operation. This table indicates no relationship between "need" and "level of medical care." Counties of low need, like Wheeler and Hamilton, have high rates of physician calls per 1,000 and have good standards for childbirth care. Meanwhile Taos and Walton Counties, with higher needs, have relatively low rates of physician calls and low standards of childbirth care. It should be mentioned, however, that the Taos association attempts to hospitalize all births among its members.

TABLE 16.—*Need as measured by infant mortality rates, volume of care as measured by physician calls per 1,000 population in the health associations and selected standards of childbirth care in the experimental counties generally, 1942–43*

County	Infant mortality (rate per 1,000 live births) [1]	Physician calls per person in the health associations, 1942–43	Births in county not attended by physician, 1942	Births in county not in hospital, 1942
			Percentage	*Percentage*
Taos	105	1.3	60	75
Walton	71	2.3	35	80
Newton	57	1.8	26	65
Wheeler	46	5.5	0	11
Hamilton	42	4.1	0	43
Cass	41	3.3	26	73
Nevada	31	2.0	23	79

[1] Based on all records available between 1920 and 1942 for each county. Taken from Vital Statistics, U. S. Census.

While the levels of medical care have been raised somewhat in all the experimental health counties, for the most part the previous differences in levels of care between counties have been carried over into the operation of the health associations. Such a conclusion is indicated by the relatively wide range in volume of service among the various health associations. Receipt of medical services by any group of people is determined not alone by the price and availability of those services but also by the traditional attitudes and habits in regard to health existing in the community.

VOLUME OF SERVICES RECEIVED

The volume of physician and surgeon services is a fair index of the capacity of the various associations to provide medical care. The index chosen for this analysis is doctor services received per person annually. Table 17 indicates the rates of physician calls per person annually during the first and second years of operation of the experimental health associations and compares them with other significant rates.

TABLE 17.—*Physicians' services received by members of the experimental health associations, 1942–43 and 1943–44, compared to other groups*

	Physician calls per person annually	
	1942–43	*1943–44*
1. Received by members of— [1]		
Wheeler County Rural Health Services Association	5.5	5.9
Hamilton County Medical Aid Association	4.1	([2])
Cass County Rural Health Service	3.3	3.5
Walton County Agricultural Health Association	2.3	2.4
Nevada County Rural Health Services Association	2.0	2.8
Newton County Agricultural Health Association	1.8	1.6
Taos County Cooperative Health Association	1.2	1.8
All associations	2.6	2.6
2. Needed for adequacy [3]	6.6	
3. Received in United States—All incomes [4]	2.4	
Under $1,200	1.9	
$1,200–$2,000	2.0	
$2,000–$3,000	2.3	
$3,000–$5,000	2.7	
$5,000–$10,000	3.6	
Over $10,000	4.7	
4. Received in rural areas (United States): [5]		
Income under $1,200 [6]	1.2	
$1,200–$1,900	1.6	
$2,000–$3,000	1.8	
$3,000–$5,000	2.3	
$5,000–$10,000	1.5	
5. Received in rural areas and towns under 5,000 population: [7] United States—All incomes	1.8	
6. Received by farm operators in Georgia and Mississippi: [8]		
Income $250–$499:		
White operators	1.6	
White sharecroppers	.8	
7. Received in Farm Security Administration plans: [9]		
Total United States	1.3	
8. Received in sample group practice medical care prepayment plans:		
"Cross section" plans (weighted average of 3) [10]	5.7	
Individual and group enrollment plans (weighted average of 7) [11]	6.1	

[1] Includes physicians' visits in home, office, and hospital, except that most of the calls in Taos County Association were clinic calls. Compiled by Jesse Yaukey, statistician, Health Services Division, Farm Security Administration, U. S. Department of Agriculture.

[2] Hamilton County Rural Health Services Association discontinued operation at the end of its first year.

[3] According to the "Lee-Jones standards" includes general practitioners' and specialists' visits for diagnosis and treatment of disease in home, office, and hospital, as well as for operative procedures. Excludes preventive services; if they were included, the figure would be 7.5. From Roger I. Lee and Lewis W. Jones, The Fundamentals of Good Medical Care, University of Chicago Press, 1933, appendix table V–2, p. 296. Dr. Lee is now president of the American Medical Association.

[4] Based on survey by Committee on Costs of Medical Care of 38,668 white families for 12 consecutive months each, 1928–31. Information obtained from family members by nurses who visited their homes every 2 months. Includes home, office, and clinic calls. Preventive services such as immunizations, health examinations, dental and eye cases, and well-baby care are excluded. If these preventive services were included, the figure would be 2.6. See I. S. Falk, Margaret Klem, and Nathan Sinai, The Incidence of Illness and the Receipt and Costs of Medical Care Among Representative Family Groups, University of Chicago Press, 1933, appendix table B–27, p. 283.

[5] Unpublished data of Committee on Costs of Medical Care covering 38,031 white persons given in Medical Care and Costs in Relation to Family Income—A Statistical Sourcebook, by Helen Hollingsworth and Margaret Klem, Social Security Board Memorandum No. 51, p. 137, March 1943. Represents home and office calls by general practitioners, specialists, and surgeons, but excludes physicians' calls at hospitals and clinic in a 12-month period, 1928–31.

[6] The total value of all crops and livestock sold, traded, or used per farm varied from $307 per farm in Taos County, N. Mex., to $1,463 per farm in Hamilton County, Nebr., in 1939 according to the United States Census, 1940. This figure is roughly equivalent to the one used for farm income by the Committee on Costs of Medical Care, and corresponds to the wage or salary of an industrial worker. Members of all associations tend to have lower incomes than nonmembers.

[7] Committee on Costs of Medical Care data analyzed by Selwyn D. Collins, Public Health Reports, vol. 55 (No. 44), p. 1994, Nov. 1, 1940.

[8] Adapted from Helen Hollingsworth, Monroe Day, Margaret Klem and Karl Benson, Consumer Purchases Study—Family Expenditures for Medical Care. Miscellaneous Publication 402, U. S. Department of Agriculture, 1941, by Jesse Yaukey, in Farm Security Administration Medical Care Program—Physicians' and Surgeons' Calls During the Year Ending June 30, 1941, mimeographed, 6 pp. Office of the Chief Medical Officer, Farm Security Administration.

[9] For 1942–43 from monthly activities reports of health service groups submitted to National Office of Farm Security Administration. See supplement to activities report for October–December 1943, p. 2.

[10] Each of these 3 plans is an industrial-type group-practice medical-care plan enrolling all or substantially all employees and their families. The number of people covered by these 3 plans totaled approximately 156,000 in 1939. Names are withheld on request. Calculated from data in Franz Goldmann, Medical Care in Industry, Medical Care, vol. 1, p. 301, 1941; vol. 2, p. 11, 1942. These data were in all cases obtained from the records of the prepayment plans. There is little "adverse selection of risk" in these plans and

It will be seen that the amount of care received by association members of Wheeler, Hamilton, and Cass Counties during the first year of operation was above the national average of 2.4 physician calls (including surgery and specialist calls) per person annually. (See fig. 7.) By the second year only two of the associations reported lower rates of care than the national average. All associations were well above the average amount of care ordinarily received by rural people in low-income groups (under $1,200) during the second year. This was true for the first year with the exception of the Taos association which had a rate equivalent to that ordinarily received by low-income groups. In other words, the associations have brought con-

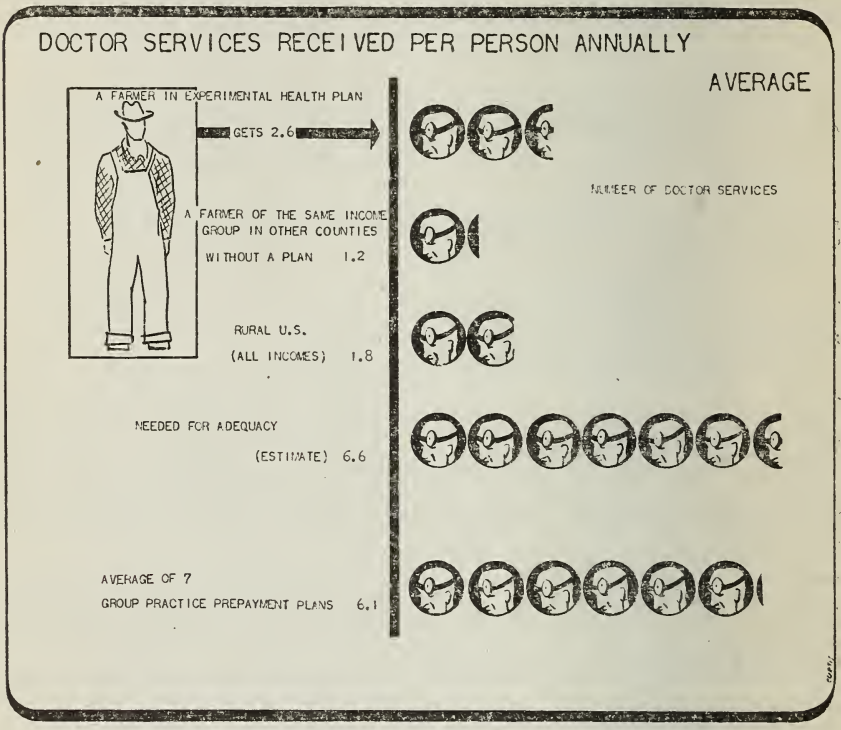

FIGURE 7.—Doctor services received per person annually

siderably more medical care to members than they ordinarily would have obtained. However, the amount of care received by association members falls short in all counties of the amount of physician service

they are well-established. Therefore, the utilization figures are probably fairly typical of the amount of physicians' services offered by group practice-medical care prepayment plans.

[11] Calculated from data on 7 group-practice prepayment plans in: Franz Goldmann, ibid. Franz Goldmann, Prepayment Plans for Medical Care. Medical Administration Service, 1790 Broadway, New York, Barkev Sanders and Margaret Klem, Services and Costs in a Medical Care Plan, Medical Care, vol. 2, p. 219, July 1942 unpublished manuscript by Louis Reed, U. S. Public Health Service table 17. The data were mostly collected between 1938 and 1941. In these plans physicians' care was offered in home and clinic, instead of in home and individual practitioners' offices, the number of people covered by the 7 plans was approximately 188,000. The total number of physicians' visits per person annually ranged between 4.7 in the only plan completely paid for by the company and including substantially all employees and their dependents in a shoe factory in upper New York State, to 13.9 in the only plan with individual enrollment and comprised of Federal employees and their dependents. There tended to be a considerably smaller proportion of the medical care given in the patients' homes than is usual under fee-for-service individual practice.

Source: This table is adapted from data assembled by Dr. Leslie Falk.

needed for adequacy. One association, Wheeler County, approximated the amount of physician service ordinarily received by members of group-practice prepayment plans for which data are presented.

Volume of care varied considerably between low- and high-income groups and between white and Negro families Table 18 indicates that lower-income families received a smaller volume of physician services than higher-income families in the Cass County and Nevada County associations. It also shows that Negroes received substantially fewer physicial calls per person annually than did white persons.

As it is known that the economic barrier to service has in general been overcome for members of these associations, such obvious differences in the volume of service received is explained (1) by variation in incidence of illness betweer groups (2) by nonrecognition of need, or (3) by general community acceptance of group differentials in care. It is well known that low income is often associated with high sickness rates. Consequently the observed differences are only capable of explanation on the basis of such factors as habit, custom, and general level of education in respect to modern health care. Such things are all outgrowths of protracted periods of low income.

TABLE 18.—*Physicians' services received by specified groups within the membership of Cass County and Nevada County experimental health associations during the second year of operation*

	Physician calls per person during second year, 1943–44	
	Cass [1]	Nevada [2]
1. Net income:		
Under $250	4.5	3.0
$250 to $499	4.2	2.8
$500 and over	5.4	5.1
2. Race:		
White	5.0	4.0
Negro	3.1	1.3

[1] Based on 91-member families representing a statistically valid sample of the 1943–44 membership.
[2] Based on 118 member families representing a statistically valid sample of the 1943–44 membership.

ADVERSE SELECTION OF POPULATION IN MEMBERSHIP

It is believed that familes with traditionally high illness rates and those with anticipated need joined out of proportion to their numbers in the total population. Evidence of this is found in specified rates of care during the first year (table 19).

The case rate (number of cases attended by physician per 1,000) for each health association in every instance exceeded the case rate for the most comparable general population—"towns under 5,000 and rural areas"—as set forth by the Committee on Costs of Medical Care. Furthermore, obstetrical case rates for each association were in every case above those for "towns under 5,000 and rural areas."

Rates of surgery were relatively high (when compared with rates in "towns under 5,000 and rural areas") in Cass, Hamilton, Nevada, Newton, Walton, and Wheeler Counties.

Besides these factors of adverse selection, certain underlying social trends peculiar to the particular period of operations had a profound influence on membership composition. The programs began at a

time when many of the individuals in the community who normally require less health care were being inducted into the armed forces or were being absorbed into industrial work away from home. The residual population was thus characterized by relatively large proportions of old folks and children, and from such people many of the members were drawn. The relatively high morbidity rates of childhood and old age thus forced the associations into the position of caring for an abnormal population group. The sex differences also should be noted. More females remained in the residual population and consequently in membership; their relatively high morbidity rates are well known.

TABLE 19.—*Volume of medical services among members of the health associations, 1942–43*

Item	Towns under 5,000 and rural areas	Cass	Hamilton	Nevada	Newton	Taos	Walton	Wheeler
1. General practitioner:								
Cases attended by physician per 1,000 population	526	1,664	1,653	1,022	1,138	740	1,149	1,964
Obstetrical cases per 1,000 population [1]	17.3	18.9	29.3	23.0	17.5	23.9	31.1	29.8
2. Surgeon-specialist:								
Annual operation rate per 1,000 population:								
All operations	47.7	78.1	196.0	35.9	57.2	(2)	55.7	80.1
Tonsillectomy	13.5	42.7	78.4	11.4	34.5	10.4	20.7	36.4
Appendectomy	5.2	13.1	5.0	4.4	5.5	3.2	9.2	9.6
Gynecological	5.5	7.6	8.4	7.1	6.9	(2)	4.7	22.2

[1] Livebirths per 1,000 population, 1942, taken from Bureau of Census, Vital Statistics, for rural areas; that is, under 2,500 population.
[2] Data not available.

Source: Data for "Towns under 5,000 and rural areas" taken from Selwyn D. Collins, The Incidence of Illness and the Volume of Medical Services Among 9,000 Canvassed Families, U. S. Public Health Service, Washington. 1944. For 7 experimental health associations, data secured from the Health Services Division Farm Security Administration.

The programs tended also to be selective of a higher proportion of white families than Negro families, resulting in a relatively large proportion of families with traditionally high medical demands. Families who were more accessible to doctors and health facilities also tended to join out of proportion to the families who lived in more isolated parts.

CHAPTER IV. CONCLUSIONS

Experimental health programs of the United States Department of Agriculture have effectively demonstrated certain strong and weak points in operations of tax-assisted voluntary county health associations. The plan's main element of strength was the provision for supplementing family contributions through Federal grant funds, thus recognizing the principle of ability to pay in the financing of the program. Without this outside assistance none of the associations could have operated, nor can they be expected to continue to operate without it. Through the organization of these health associations many farm families have benefited from medical, dental, and hospital services not ordinarily received. They have expressed overwhelming approval of the principle of paying for their health services in advance on a group basis.

Most weak points are encompassed under two heads: (1) Incomplete population coverage, and (2) inadequate scope and quality of care.

INCOMPLETE POPULATION COVERAGE

Small annual coverage and high turn-over.—The health associations have revealed an incapacity to bring about complete coverage of the eligible population in each county. Population covered varied from about one-fourth in one county to three-fourths in another. Besides such wide variability in population enrolled each year, turn-over in membership was high, resulting in insufficient time to build up the health status of members.

It is important that a prepayment plan for health services include adequate representation of all income groups in the area in order to stabilize its resources and include both high- and low-risk families so as to spread the risks. How well the plans met such requirements was partly dependent upon how close the associations attained complete coverage of the population. Experience in the experimental programs only confirms what is known generally about voluntary health insurance plans. For example, only 41 percent of those eligible joined Farm Security Administration sponsored health plans in 1944 and the percentage had declined from 61 percent in 1941.[1] In this connection, it is estimated that the number of persons covered by voluntary health insurance providing comprehensive medical care comprise less than 2 percent of the total United States population.[2]

A study of Farm Security Administration health associations in five counties of southern Ohio showed that only 8 percent of members maintained continuous membership for the 3 years 1940–43.[3] Those who used the plan least were the ones tending to drop out, i. e.,

[1] Records of Health Services Division, Farm Security Administration.
[2] Estimates compiled by Dr. Leslie A. Falk.
[3] Robert L. McNamara and A. R. Mangus, Prepayment Medical Care Plans for Low Income Farmers in Ohio, Bulletin 653, Ohio Agricultural Experiment Station, Wooster, Ohio, October 1944, table 14, p. 22.

sicker families tended to stay in. This is what is known as "adverse selection of risk."

Adverse selection of risk.—A successful prepayment plan rests upon the principle of pooled resources and shared risks. The experimental health programs, on the basis of available facts, were highly selective of a disproportionate number of low-income families, thus disallowing the full operation of the principle of pooled resources. Upper-income families tended to stay out forcing the burden of compensating for the small number of high-income families on outside funds. There are many indications that high-risk families, and those with known medical requirements at time of application, took advantage of the lenient requirements on membership and in so doing contributed to the break-down of the principle of shared risks. Adverse selection of risks raised the cost of the program to the "average" family and no doubt contributed much to lack of complete population coverage.

INADEQUATE SCOPE AND QUALITY OF CARE

Lack of paying power for comprehensive services.—Cost of medical and dental care through these health associations averaged around $50 per family in contrast to about $100 per family in 1942 for medical care only in the entire United States. The approximate cost of adequate medical care has been estimated by Samuel Bradbury at $103 per family with group practice and salaried physicians, or $308 per family with individual practice and fee-for-service payment to physicians.[4] By any standard, therefore, the health associations were not spending enough to provide complete, high-grade medical care.

Local opinion and judgment, as expressed in local administration of programs, militated against the broadening of the programs. Although the original nonlocal planning envisaged a comprehensive health-care plan, local people "cut the pattern to meet the cloth"—in this instance the paying power of families.

Inexperience with any broad-gaged medical-care plan no doubt contributed much to the prevailing attitudes among local people. But it is a fact that adequate paying power was lacking in these counties and a great amount of grant funds would have been required if a comprehensive medical-care plan was developed. The marginal economic position of many family members was shown by their inability to continue in membership when the minimum fee was raised beginning with the second year. Many families needing the services offered by the health associations were thus deprived of benefits through no fault of their own. Finally, too low standards of medical care existed within these county units and the health associations have so far been unable to do very much about the situation.

Unchanged pattern of medical care.—One of the most important points is that the voluntary health associations have made little or no changes in medical and dental personnel, facilities, or habits and concepts of health care. About the only change is in the method by which the family pays for health services. Previous differentials among groups in volume of care received are maintained under the programs. Hospital and other medical facilities were accepted pretty much as they were before the association was organized, lacking any comprehensive plan for improvement on a broader basis than a county.

[4] Samuel Bradbury, M. D., the Cost of Adequate Medical Care, University of Chicago Press, 1937, p. 52.

Existing inadequacies in number of physicians, dentists, and nurses were perpetuated because of ineffective measures to attract new personnel. The war made the shortage more pronounced.

Inadequacy of the county unit.—The rural county is demonstrated to be a wholly inadequate unit in respect to (1) availability of professional personnel, and (2) completeness of technical facilities for diagnosis and treatment. From a financial standpoint also the rural county unit provided insufficient stability of resources to assure the necessary funds to finance an adequate medical-care program. For that matter it is clear that the problem of rural health is inextricably bound up with the entire health problem of the Nation and cannot be solved without drawing upon the total resources of the United States—rural and urban. Administrative problems associated with county associations operating on a year-to-year basis result in high average costs of administration.

SPECIFIC STEPS THAT MIGHT IMPROVE THE PROGRAM

More adequate coverage could be attained by removing any restrictions on membership such as residence, income, or occupational requirements. But it would be necessary to accompany lifting of such barriers by other steps designed to improve the quality of health care offered. This might be done through planning for more adequate referral services outside the county and taking the lead in bringing more and better personnel and facilities to the community. The problem of securing sufficient funds to buy and maintain those needed facilities should be met squarely. This is a community responsibility and cannot be met solely by the health association.

It is fortunate at the present time that large amounts of surplus medical, dental, and hospital supplies are now available at a nominal price from the Federal Government, and they should be utilized to the utmost in rural areas.

Experimentation with some form of group enrollment, on a farm (plantation) or community basis, should be instituted by the health associations to help compensate for adverse selection of risk.

Closer cooperation between the health association management and other agencies of the county, particularly the public health units where they now exist, should bring more preventive services to members and place necessary emphasis on the preventive side of health care. Health consciousness undoubtedly would be increased by requiring entrance and periodic health examinations. Such measures would provide a benchmark of individual health need on the basis of which a systematic remedial program aimed at improving general health status could be laid out. To assure some stability and continuity in the programs it is imperative that grant funds be made available to finance a 5-year program instead of the present year-to-year plan.

An imaginative educational campaign designed to acquaint members with good standards of medical and dental care and services now available to them should be developed. In conjunction with other community agencies concerned with health this might take the form of general consumer health education and information in regard to the best use of available services. Each association manager should be charged with definite responsibility for health education as well as public relations. But more active participation of members in more

of the day-by-day decisions of running the health associations should be encouraged by management.

MORE GENERAL POINTS ABOUT THE PROGRAM

One point is clear: Health and well-being of the individual is an extremely complex problem affected by both biological and environmental factors. Some of the most important factors over which the individual has some control are nutrition, housing, sanitation, working conditions, social security, health services available, and the general educational level.

Any approach to the solution of the broad problems of health must include (1) broad policy formulation and setting up long-time goals to aim at, (2) a beginning toward more immediate and reasonably attainable minimum objectives, e. g., a preventive program, and (3) substitution of other objectives as each is attained. Having decided upon a course of action it is imperative that the whole process by which a group of people think through their problems should be understood and allowed to function. Briefly this process for group action involves (1) a recognition of need, (2) an opportunity to choose from alternative courses of action, (3) selection of a course to be pursued, and (4) assumption of local responsibility for carrying out the plan and for making it work.

WIDER IMPLICATIONS

Even if it were possible to incorporate the modifications in the health programs suggested in the preceding section the resulting program would still not provide a system of medical care under which all the people would receive the benefits of modern science and new techniques. Included in this failure is the lack of well-coordinated preventive diagnostic and curative services. To take full advantage of modern technological advancement in health services it is necessary that the plan for rural people be coordinated with a broader plan for the entire population. Such a plan should provide for rural and urban citizens alike.

Any broad program of health insurance should conform as closely as possible to the following specifications so as to overcome the inadequacies inherent in the tax-assisted voluntary health associations.

1. Universal participation through family contributions based on ability to pay.
2. Tax assistance where necessary to provide equal medical and dental care to all.
3. Constructive planning and responsibility by local community, county, State, and Nation.
4. Better public health units in all counties to give greater preventive health service.
5. An expanded and coordinated system of hospitals and health centers, including research.
6. Greater numbers and better distribution of physicians, dentists, nurses, and laboratory technicians.
7. Effective administrative and democratic procedure to maintain and improve the quality of professional care.
8. A comprehensive program of modern medical, dental, and hospital services, including health education.

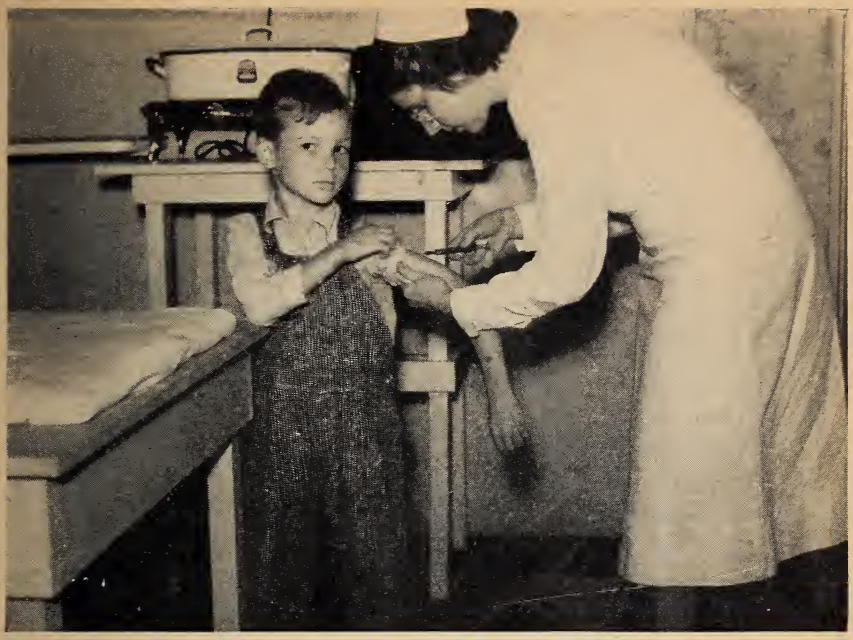

PLATE 3.—Prevention is better than cure.

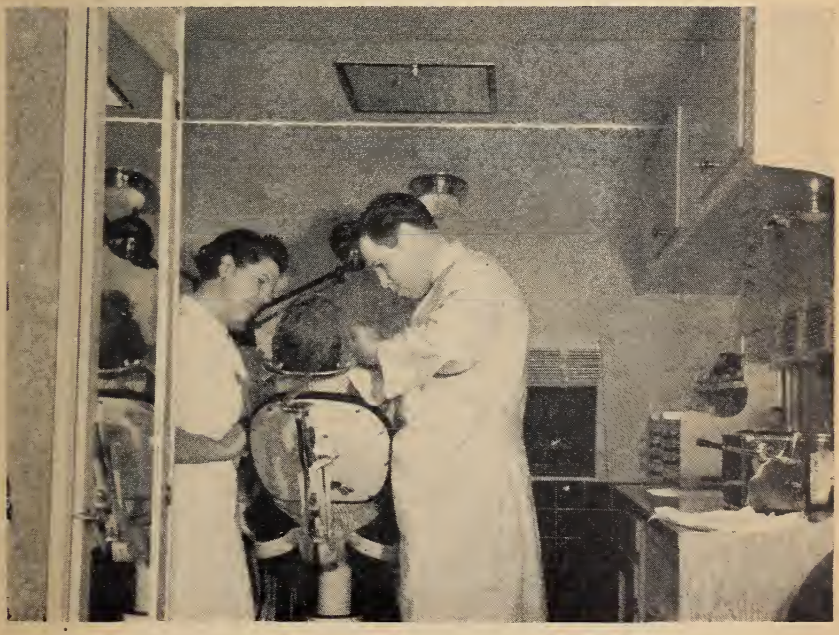

PLATE 4.—Isolated rural areas can be reached by mobile dental units housed in trailers.

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There are indications that the American people are gradually turning to some form of compulsory health insurance such as is included in the "National Health Act of 1945" (S. 1606, H. R. 4730) which provides for a system of health insurance. Of persons with opinions pro and con on such a plan for medical care, as reported by the National Opinion Research Center of the University of Denver, 51 percent consistently supported the legislation and the remaining 49 percent were not consistently against the legislation. To the question, "Do you think it would be a good idea or a bad idea if the social-security law also provided paying for the doctor and hospital care that people might need in the future?" 68 percent replied that it was a "good idea," 19 percent that it was a "bad idea," and 13 percent said they "didn't know." [5]

[5] What Do the American People Think About Federal Health Insurance? Report of a Nation-Wide Survey of Civilian Adults, National Opinion Research Center, University of Denver, Special Report, p. 3.

PART II. TYPES OF HEALTH ASSOCIATIONS

The method of making payments to practitioners is an important element in the administration of any prepayment plan. Cooperating practitioners were paid from the fund for services on the basis of—

1. Fees for services rendered to individuals entitled to services, according to a predetermined schedule;
2. Capitation, with this modification, that the payment be according to the number of families rather than individuals entitled to service on each practitioner's list;
3. Salary, whole or part-time.

An illustration of each type of payment is included in this part of the report. These three case histories describe in detail how health associations function and indicate more clearly than the summary statement many of the strengths and weaknesses. A careful study of each analysis will go far in establishing more clearly many of the generalizations set forth in part I. Description of all seven associations are available in mimeographed form from the Department of Agriculture.

NEVADA COUNTY RURAL HEALTH SERVICES ASSOCIATION, INC., 1942–44

A Fee-for-Service Plan

CHAPTER V. INTRODUCTION

THE COUNTY

Nevada County, on the plain of southwest Arkansas, was settled before the War Between the States. Between its first settlement by Tennessee families and their slaves in 1817, on the Little Missouri River, and its legal birth as a county 54 years later (1871), several villages were established by people from Southern States. These people naturally carried with them the habits and customs of the earlier southeast settlements from which they came. Nevada residents were, and are today, predominantly white, Protestant, predominantly of the Democratic Party, and firm believers in education.

Prescott in the northwest part of the county, strengthened by its position on the Missouri Pacific Railroad and United States Highway 67, has become the county seat, largest town, and center of economic, political, social, and medical activities.

Farming is the major industry. Cotton is the main cash crop. Corn, hay, and vegetables are grown chiefly for home use. Rainfall seems to be adequate, but soil is somewhat eroded and farming methods are not modernized. Nearly half of the farm operators are owners—47.2 percent. The average size of farm unit, according to the 1940 Census of Agriculture, was 109 acres. Large plantations are not characteristic; few farms have more than 2 or 3 tenant families. Many of these tenants are sharecroppers with farm operations on a subsistence or near-subsistence basis. Gross income per farm for products sold, traded, or used at home during 1939 was $555 (1940 Census of Agriculture). The 1,437 families in the 1942 health program reported an average net cash income of only $119 for 1941. The average size of family, as indicated by size of the families in the health association, was 4.2 among whites and 4.8 among Negroes. These figures, obtained during the war, probably represent some reduction in family size because older children had left for the armed services and war work. For families of 4 or 5, the annual income is manifestly inadequate to include even minimum medical and dental service.

Negroes, disadvantaged in medical care here as elsewhere, comprised 30.5 percent of the farm operators in 1940 (37 percent of total county population).

Regarding the conditions of local farm life that affect health, a survey of 118 sample families (members of the health association which was organized in 1942) showed that the old-fashioned open well—the "Old Oaken Bucket" which has contributed so much both to barber-shop harmony and to disease—was still the principal source

of drinking water. Only about half of the white member families and fewer than one-third of the Negro member families had protected wells or piped water.

In view of the urging and assistance by WPA, Public Health Department, and FSA during depression years for farm people to build sanitary privies, it is surprising that 84.8 percent of these families continued to use common privies. Only 15.9 percent of white and 13.3 percent of Negro member families had either pit privy or flush toilet.

Source of drinking water and toilet facilities among whites and Negroes were about equally poor but in regard to screens the contrast between the two races was sharp. Only 5.7 percent of white member families had no screens, but 43.4 percent of the Negro families had none. In number of persons per room and apparently in other living conditions not studied in detail, many families were living under substandard conditions although not in the "rural slums" that often are written about nowadays.

But both the general death rate and the infant mortality rate (as of 1940) were lower than in most parts of the South:[1] 7.1 deaths per 1,000 population and 24.2 infant deaths (under one year) per 1,000 live births.

HEALTH FACILITIES AND SERVICES

General practitioners.—In autumn 1944 there were only 7 general practitioners—6 white and 1 Negro—living in Nevada County. The ratio of general practitioners to the estimated county population was 1 to 2,296. Five of the seven physicians were concentrated in the northern section of the county and 5 were more than 60 years old. Practically all the physicians were greatly overworked and realized that more doctors were needed.

In 1941 there were 19 general practitioners in the county; Prescott had 12, Rosston 2, and 1 each in 5 smaller towns. By the fall of 1944, 5 had gone into the armed forces, 3 had died, and 4 had moved out of the county.

Many people obtained medical care outside the county. Similarly, people in adjacent counties obtained medical care in Nevada.

Surgeon-specialists.—Most surgery for association members was done by the owner of the hospital in Prescott—the only hospital in the county. In the past he had an assistant, but was alone during 1944. Another doctor did some surgery. There was one ear-eye-nose-throat specialist in the county.

At times, association members went to participating surgeons outside the county. Bills presented to the health association by participating out-of-county surgeons were honored on the same basis as local physicians' statements.

Dentists.—There were only two dentists in the county before and during the war; both were in Prescott. One did most of the work for association members.

One dentist in adjacent Columbia County accepted association patients without reservations; two dentists in Hempstead County accepted members with some reluctance.

[1] For the South as a whole: 10.1 deaths per 1,000 population and 48.6 infant deaths per 1,000 live births (Vital Statistics, Special Reports, Vol. 19, Nos. 2 and 6).

Chiropractor.—One chiropractor who lived in adjoining Hempstead County maintained an office, half-time, in Nevada County but he was not in the association.

Midwives.—Midwives are not licensed in Arkansas but they are permitted to practice. Apparently the State Health Department takes the position that since midwifery will continue for some time, the practice should be improved as far as possible. Midwives register with the county nurse who gives each one a physical examination, including Wassermann test and chest X-ray, and inspects their midwifery equipment. The county public health unit conducts occasional classes and demonstrations for midwives. Although midwifery is declining in Nevada County, 36 midwives—35 Negro and 1 white—were registered with the county nurse in November 1944.

Hospitals.—Above the front entrance of the county's one hospital is the inscription, "A hospital for the sick regardless of nationality or creed." The building, privately owned and operated, contains 21 rooms with single beds for white patients and 2 rooms with 2 beds each for Negro patients, a total of 25 beds. There are 6 bassinets in the nursery, used for white babies. Facilities included operating room and equipment, sterilizing room, obstetrical room, X-ray equipment, and oxygen tent. The nursing staff consisted of two graduate nurses and 6 undergraduate nurses.

Most hospital cases among association members went to this hospital but some patients went to hospitals outside the county. In such cases the association honored bills submitted by these hospitals on the same payment basis as if submitted by the local hospital.

Druggists.—As before the war, there were three drug stores in the county, all in Prescott. Each retained one or more registered pharmacists. Two physicians who lived in small villages compounded and dispensed some drugs.

Public health unit.—In November 1944 the county was part of a three-county district, with district offices at Arkadelphia, county seat of adjacent Clark County. Ordinarily the staff included public health physician, sanitarian, and clerk but no public health officer was stationed in the district on that date. The State health department reported that wartime demands for physicians made it difficult to obtain and hold qualified public health officers.

In addition to the district staff, the Nevada County public health unit included a nurse who had supervision of the office, a clerk, a part-time venereal-disease clinician, two part-time maternal and child-health clinicians, and a part-time tuberculosis nurse paid by the Nevada County Tuberculosis Association. During 1943 a nurse employed by the Nevada County health association for 5 months was assigned and made responsible to the county public health unit.

Although public health services were introduced into the county about 1925 and a county nurse was appointed by the State board of health in 1930, it was not until 1943 that a county nurse with academic training in public health was employed. Activities of her program in 1944 were as follows:

Tuberculosis case-finding: 28 new cases were found through 2,210 tests.

Venereal-disease clinics were held twice a week.

One maternity and one child-health conference were held each month, conducted by private physicians paid by the State board of health.

More than 2,000 typhoid, 1,000 diphtheria, and other immunizations were given.

Midwives were given physical examinations and some training.

Sanitation program was conducted; among other things it included inspection of food establishments, milk supplies, school water supplies, and sewage disposal.

Other health work.—Local chapters of the Tuberculosis Association and of the American Red Cross have carried on the usual work of their organizations. The State department of public welfare, through its county office, administered the assistance to crippled children and other parts of the Federal Social Security program. The public schools taught health and worked closely with the public health unit in providing immunizations to children. The Agricultural Extension Service and the Farm Security Administration gave some health instruction and helped farm families to plan for improvement in nutrition and sanitation.

The Farm Security Administration initiated, in 1938, a medical plan for its borrowers, including general practitioner care, emergency hospitalization, and surgery, at an annual cost per family of $10, plus $1 for each member. In 1940 limited dentistry was added at a yearly cost of $3 per family plus 50 cents for each additional family member. The plan was discontinued in 1942 when the Rural Health Service Association for all farmers of the county was started.

PATTERN OF MEDICAL CARE

At the turn of the century there were about 40 physicians in Nevada County. Almost every hamlet had at least one practitioner. His training usually was limited but he was highly respected—people asked him for advice as well as for pills. He rarely maintained an office, as his time was devoted almost entirely to home calls. The home conditions under which the doctor worked and his methods seem very crude to us today, to say the least. Nevertheless, it has been an established habit among rural people in Nevada County to call a doctor in time of illness (with some exceptions in confinement cases), though sometimes he was called later than he should have been.

Health practices changed rather rapidly. Before they joined the association, most white mothers remained at home during their confinement but were attended by a physician in 90 percent of cases. During 1943–44, however, slightly more than one-half of the babies born to white mothers in the association were delivered in hospitals. This increase in the number of confinement cases hospitalized may be accounted for by (1) the general trend for mothers to go to hospitals for childbirth, (2) refusal of overworked physicians to attend a mother at home, and (3) payment of bills by the health association. The association paid hospitalization bills for all obstetrical cases, although the agreement had actually stipulated that payment would be made only in cases where complications developed.

Most Negro mothers before joining the association remained at home during confinement; three-fourths of them were attended only

by midwives. During 1943–44, however, about three-fourths of the confinement cases of Negro members were attended by physicians, and nearly one-fourth of the mothers went to the hospital. There is every indication that the health association played an important part in improving obstetrical care for Negro mothers, especially by providing a physician. Physicians reported that progress had been made in getting mothers to see the importance of prenatal and postpartum care.

In Nevada County, as in most rural counties of the United States, organized programs for general rural health have come only in the last 15 years: A county nurse in 1930, the FSA health association for its borrowers in 1938, and the Rural Health Services Association in 1942, sponsored by the United States Department of Agriculture. Such efforts were seriously needed here because of low farm income, poor sanitation on many farms, and a scarcity of privately furnished health facilities and personnel.

CHAPTER VI. THE NEVADA COUNTY RURAL HEALTH SERVICES ASSOCIATION

DEVELOPMENT OF PROGRAM

How such an association is started is a crucial question. In this instance, impetus came from the Arkansas Land-Use Planning committee, composed of State heads of agricultural and related agencies together with leading farm men and women.

In 1939 the committee appointed a subcommittee on rural health and medical service, which submitted a report in 1941 naming three elements of the rural health problem as demanding careful attention and action: foods and nutrition, public health services, and medical care. The problem of medical care was considered particularly urgent in rural Arkansas. The subcommittee recommended that one county be selected for trying out a group health program open to all farm families. This recommendation was approved by the committee in its 1941 report.[1] When the United States Department of Agriculture, in response to similar reports from other State land-use planning committees, made available to a few counties grants-in-aid for experimental rural health programs, Arkansas lost no time in trying to qualify for one.

Nevada County, although not meeting the desired requirements in full (see p. 9), was selected for exploration of local opinion regarding the proposed health association, one of the important criteria of selection being a receptive attitude on part of professional groups. The public health officer of the area, the regional health specialist of FSA, and a regional representative of the Bureau of Agricultural Economics visited the county late in 1941 and talked with personnel of the Extension Service, the FSA county supervisor, and the physician-owner of the local hospital. Efforts were thus made from the beginning to learn the attitudes of local professional workers among farm families and, through them, the attitudes of families and professional personnel.

All who were consulted were favorable to the plan. The physician, a former president of the Arkansas State Medical Society, later obtained from that society its approval of the plan.

Early in the following March (1942), the Nevada County Agricultural Workers Club discussed the proposed health program at length, and the county agricultural planning committee appointed a steering committee to work out details for organizing and putting the health association into operation. This committee included representatives of Nevada County officials, Federal agencies, and farm people themselves.

The educational and membership campaigns were conducted largely through white and Negro neighborhood and community committees.

[1] Arkansas State Land-Use Planning Committee, An Agricultural Program for Arkansas, June 1, 1941, pp. 36–39.

Community meetings were held in every part of the county, leaflets were distributed, letters and a few newspaper stories written. In May 1942, a health specialist was assigned to Nevada County by the Farm Security Administration which, because it already had medical personnel, had been designated by the Department of Agriculture's Committee on Postwar Programs to assume leadership in the new program. Thereafter this FSA health specialist aided materially in getting the association started. In early summer he and the steering committee worked out final agreements with physicians, dentists, and druggists of the county with respect to proposed services.

A charter was granted to the association as a nonstock cooperative in June, and it began operating September 15, 1942. The stated purpose of the association was to secure for its members and their families medical care, hospitalization, drugs, nursing, and kindred services at a price that farmers could afford to pay. This is indicated by the sliding scale of membership fees according to family income, which will be described more fully in another section.

ORGANIZATIONAL STRUCTURE

Board of directors.—Affairs of the association were directed by a board of five, elected by the members from their own number. Of the original five board members (referred to previously as the steering committee), who were likewise the incorporators of the association, four were retained by the electorate at the first annual meeting. Three of the first-year members were reelected for the second year (1943–44).

The kind of people who composed such a board will be of interest to anyone who contemplates the formation and probable workings of such a health association. All members of the 1942–44 board owned their farms, but their holdings were modest, averaging 122 acres each. None had gone beyond the eighth grade in school and none had stopped before reaching the sixth. In general, they were the type of men to whom local people look for leadership in such other local organizations as the school and the church.

The directors' duties—such as delegation of authority to management, control of expenditures by authorizing budgets, and informing the members—were essentially the same as in the other experimental rural health programs, and can be read in full in the sample of an association's bylaws presented in part III (p. 150). Basic responsibility for policy rested in the board of directors representing the membership. During the first 2 years the board met on an average of about once each month, subject to call of the manager.

Officers.—Duties of president, vice president, and secretary-treasurer were the usual ones of these offices. A cooperative organization required clear designation of responsibility in the operation of the association. In this one, the president executed notes, bonds, contracts, mortgages, and other instruments in behalf of the association, while the secretary-treasurer countersigned these documents, as well as all checks, with the manager. The president, as presiding officer at all board and members' meetings and as ex officio member of all standing committees, could influence strongly the policy decisions of the association. The other person who had opportunity for similar influence, although not final decision, was the manager.

Manager.—The manager was expected to engage and discharge employees, keep books, furnish monthly and annual reports, assist the board in preparing budgets, and advise it in formulating policies. His was one of the most important positions in assuring the success of the program. During 1943–44, the manager received a salary of $200 per month. He was assisted by a clerk whose salary was $75 a month.

It had been difficult to keep a qualified manager. The first had been employed elsewhere in Arkansas by FSA before his transfer to Nevada County in May 1942. Until he went on leave in September to enter the armed forces, he devoted full time to educational aspects of the proposed program. His successor, a Nevada county farmer who had worked with the Agricultural Adjustment Agency for several years was hired. He knew the farmers and farm situation of the county very well but when he was elected to a county office a year later, the association had to find another manager.

Professional committees.—The Nevada County Medical Society appointed a committee of physicians to review, and adjust if necessary, all bills submitted to the health association by physicians. Ordinarily the committee was composed of three members but only two were serving when the study was made.

Participating druggists appointed a similar committee during the 1942–43 fiscal year when drugs were included in the program but reviewing of bills proved to be rather time consuming and they asked that the association manager assume this responsibility.

As there were only two dentists in the county and most dental work for association members was done by one of these, the committee of dentists functioned rather perfunctorily.

Professional committees did not operate effectively in practice, but such committees should be provided for in the plans.

APPRAISAL OF ORGANIZATION AND ADMINISTRATION

Administrative costs varied little for the 2 years. Such things as postage, office heat, telephone, and bank exchange formed a nearly constant overhead. There was little variation in travel expenses, insurance, bond, and other expenses; the two largest items—salaries of manager and clerk—together used 81 percent of the administrative budget.

Salaries were not changed to conform with an increase or decrease in membership. Hence, administrative costs were relatively higher the second year due to the sharp decline in membership. The number of member families in 1943–44 was 18 percent less than in 1942–43; the per family cost of administering the program, 14.5 percent higher. A relatively large membership is essential if administrative costs are to be kept at a minimum.

The fundamental form of the organization, with board of directors elected by and from the membership and with a paid manager responsible to this board, seemed to satisfy very well the needs of rural people.

FINANCING THE PROGRAM

Membership fees.—Family membership fees for the first fiscal year were fixed at 6 percent of the 1941 net cash income of the family, with the exception that no family was to pay less than $5 or more than $54. The average payment by member families was $7.88, or 14.6 percent of the total cost of operating the program during the first year. Most

association funds, therefore, came from the Federal Government grant of $86,040, and not from the $11,335.74 collected from family membership fees. However, $25,031.09 of the Government grant was not used the first year.

Government grants to the association for the 1943–44 year were smaller, amounting to only $45,724.09 and this included the $25,031.09 carried over from the previous year. As it became necessary to raise a greater proportion of operating expenses from membership fees, the formula for determining fees was changed slightly. Member families paid 6 percent of their net cash income for 1942, except that the minimum fee was raised from $5 to $12 at the same time as the maximum fee was lowered from $54 to $48. No drugs were supplied the second year, and no funds were included for nursing service. Family membership fees averaged $18.39 for 1943–44, or 38.3 percent of the total operating cost of $48 per family.

Allocation of funds and provision for payment.—The budgeted amount of $54 per family for 1942–43 and $48 per family for 1943–44, financed by membership fees and grant funds, was allocated to the various types of services according to esimated costs, in keeping with agreements with professional groups (table 20). Funds so allocated (except for contingent and administration items) were divided into 12 equal parts, 1 part for each month.

TABLE 20.—*Amount budgeted for each family in Nevada County health association, by specified service, 1942–43 and 1943–44*

Type of service	1942–43		1943–44	
	Amount	Percent	Amount	Percent
General practitioner	$16.00	29.6	$19	39.7
Surgeon-specialist	6.00	11.1	6	12.5
Hospital	10.00	18.5	10	20.8
Dentist	7.00	13.0	7	14.6
Administration	3.00	5.6	3	6.2
Drugs	7.00	13.0	0	.0
Nurse	2.50	4.6	0	.0
Contingent	2.50	4.6	3	6,2
Total	54.00	100.0	48	100.0

When the amount allocated for a given service was equal to or greater than the total of bills submitted for that month, the bills were paid in full. If the total of bills was greater than the amount allocated, then the bill for each service was scaled down to its percentage of the total allotted to that service. Unpaid balances were carried forward for 6 months, then were applied to unpaid bills on a percentage basis. Contingent funds were used to supplement funds budgeted for the various services. Final adjustments were made at the end of each fiscal year.

Appraisal of financing.—Medical care ordinarily costs a lot of money, but Nevada County people who joined the health association were not required to pay the total medical bill, because substantial grants were made by the United States Government to help finance the health program. These grants were made with the distinct understanding that the program was experimental, and not to be continued indefinitely. It was a research project whereby something would be learned regarding ways and means of improving medical care for farm people.

Unfortunately, from the viewpoint of maintaining a controlled experiment so far as possible, the amount of grants varied widely for the 2 years. Members were required to pay a much larger proportion of the total bill the second year than the first, their share rising to 38.0 percent from the 15.7 percent of the previous year.

The relatively large unexpended balance of grant funds remaining at the end of 1942–43 ($25,031.09) indicates that the number of members for that year did not reach expectations. Some funds accrued because expenditures were $3.67 per family less than the amount budgeted.

From the standpoint of the family, the members had quite a "bargain." During the first year they paid only about 16 cents of each dollar spent in the program. However, they paid 38 cents of each dollar spent by the association during the second year.

Major services will be considered separately for analysis of services and costs. The proportion of each dollar spent for each service was nearly the same in the 2 years (for those services provided both years), except that a higher proportion was spent for practitioner care the second year (table 20).

Evidently the amounts budgeted for surgeon-specialist, hospitalization, dentistry, and administration for the 2 years were not far wrong since a high percentage of bills were paid (table 21). The $7 per family set up for drugs, however, was not enough to pay for all medicines, and the drug program broke down. Allocation of $16 per family for practitioner care was low for both 1942–43 and 1943–44, in terms of fees charged. Practitioner charges were $21.96 per family the first year and $26.15 per family the second.

TABLE 21.—*Average amount budgeted, bills, payment for each family* [1] *and percent of bills paid, by specified service, Nevada County health association, 1942–43 and 1943–44*

Item	Amount			Percent of bills paid
	Budget	Bills	Payment	
General practitioner:				
1942–43	$16.00	$21.96	$19.61	89.3
1943–44 [2]	19.00	26.15	24.05	91.9
Surgeon-specialist:				
1942–43	6.00	6.95	6.60	94.9
1943–44	6.00	7.10	6.77	95.4
Hospitalization:				
1942–43	10.00	9.00	9.00	100.0
1943–44	10.00	8.57	8.57	100.0
Dentistry:				
1942–43	7.00	6.31	6.31	100.0
1943–44	7.00	5.60	5.60	100.0
Administration:				
1942–43	3.00	2.77	2.77	100.0
1943–44	3.00	3.00	3.00	100.0
Drugs:				
1942–43	7.00	5.63	5.63	100.0
1943–44	(3)			
Nurse: [4]				
1942–43	2.50	.41	.41	100.0
1943–44	(3)			
Contingent:				
1942–43	2.50			
1943–44	3.00			
Total:				
1942–43	54.00	53.03	50.33	94.9
1943–44	48.00	50.43	47.99	95.2

[1] 1,437 member families in 1942–43; 1,179 member families in 1943–44.
[2] 1943–44 figures subject to final audit.
[3] Service not provided during 1943–44.
[4] Nurse employed only from Feb. 10, 1943, to June 20, 1943.

MEMBERSHIP COVERAGE

Eligibility.—Membership in the association was limited to persons residing in Nevada County who were engaged in agriculture, and who were approved by the board of directors. Thus the program was intended for all farmers, not merely for low-income families. Members of a family living with and substantially dependent upon the member head for support were entitled to all services provided by the association.

Families and persons.—Membership in the health association reached 1,437 families containing 6,350 persons during the first year. The second year, the number of families decreased 18 percent and number of persons decreased slightly more than 27 percent; there had been a decrease in size of family as well as in total family membership in the association.

Why members dropped out second year.—(1) The increased membership fee for the second year doubtless caused many members to drop out. When the Government reduced the grant for 1943–44, resulting in the minimum fee being raised from $5 to $12, many families were unable to meet the increased membership fee. Others just did not like the idea of having their fees raised so much; 67 percent of the members had paid a fee of less than $8 per family the first year. Net incomes reported by farmers of the county for 1942 were substantially greater than for 1941 and a number of farmers were working part time off the farm. Since membership fees, with a minimum of $12 and a maximum of $48, were based on 6 percent of net cash income for 1942, fees were increased for most families. At the same time, no drugs were to be furnished the second year, and this contributed to making the second year's program less attractive than the first.

(2) By 1943 the shortage of physicians in the county had forced doctors to make fewer home calls than usual. Their physical strength was being severely taxed in handling office calls, surgery, and hospital calls. Farmers were finding it increasingly hard to get to the doctors' offices because their automobiles and tires were wearing out. Some had no car. Many farmers probably concluded that they could not take full advantage of the medical care under wartime conditions, and so did not join. This seemed to be especially true of farmers in the southern part of the county.

(3) Some families did not renew because they were disgruntled over the method of determining fees. One person would say for example, that he reported his income honestly and so his fee was larger than his neighbor's who made more but underreported his income.

Total population and farm population.—As stated earlier, the health association was designed for all farm families in Nevada County. The extent to which farm families enrolled in the program reflected their opinions of its value. During the first year, slightly less than half of the farm people (48.2 percent) were included in the association but only about 4 out of 10 farm persons (37.4 percent) were covered in the second year. The proportion of total county population reached was much less, of course, since nonfarm people were not eligible.

Race.—Enrollment of Negroes dropped the second year. In 1942–43 slightly less than 60 percent of the white persons and 50 percent of the Negro population in agriculture were members. During the

second year, less than one-third of the Negroes on farms belonged, while close to one-half (49 percent) of the eligible white persons were members. Negroes probably were hardest hit by the increased minimum fee, and so tended to discourage Negro membership. This may seem a small yearly payment for health care for an entire family but it looms large to a sharecropper, especially in the fall just before "settling up" time.

Tenure.—According to the 1940 census 53 percent of farm operators in Nevada County were tenants and 47 percent were owners. Percentages of owners and tenants in the health association at first were very close to these county figures, but during the second year the proportion of owners rose sharply (to 59 percent) with a corresponding decline in tenants. Possibly more tenants than owners moved away to war jobs, thus decreasing the percentage of tenants among farm operators. The absence of farm-laborer families in the membership does not indicate deliberate exclusion; there seemed to have been very few farm laborers in the county.

Size of farm.—Big and little farmers were included. There does not seem to have been dominance by either group.

Section of county.—The first year, more members relative to the size of the eligible population came from the southern part of the county. During the second year, the situation was reversed, when the membership was drawn primarily from the central and northern sections.

This sharp reduction in coverage of the southern part of the county can be explained as follows:

1. People in the southern part, farthest removed from Prescott, the medical center, found it difficult, if not impossible, to take full advantage of the program.
2. One physician who was in a southern community the first year was not there during the second.
3. There were proportionately more Negroes in this part of the county, and the higher minimum fee was particularly hard on them.
4. The second year membership campaign was less intensive than the first. In general, the chances that a person would be asked to join the association for the second year decreased as the distance of his home to Prescott, the seat of the association office, increased.

Age and sex.—Membership contained high proportions of children and old people and a low proportion of young men as might be expected during war years. Demands for medical care were probably greater than they would have been had the members been distributed more normally in the age groups. This may have been offset slightly by the fewer number of females of child-bearing age who were members.

Schooling.—Heads of white member families had completed an average of eight grades of school whereas Negro heads had completed an average of five grades. Only 13 percent of Negro family heads had continued beyond the eighth grade, compared with 28 percent of white family heads.

Schooling of association members is an important fact to be considered by health association officials when they begin planning and conducting an educational program. As the second year membership campaign was conducted mostly by mail, it was probably less effective for Negroes, with their lower rates of literacy, than community meetings and personal solicitation would have been.

SCOPE OF SERVICES

For members of the health association and their families, the following services were provided:

General practitioner care and surgeon-specialists.—Practitioner care included office, hospital, and home calls, but patients were urged to call on the physician at his office during regular office hours. Available services were considered broadly as those usually provided by general practitioners, including obstetrical care (prenatal, delivery, and post-partum), and minor surgery.

Major surgery and specialist care was provided by physicians participating in the program only when patients were referred to them by attending physicians (except in case of emergency). In cases where treatment could not be provided in Nevada County, patients were referred to specialists outside the county.

All physicians cooperating with the program, including a few doctors in adjacent counties, were members of their county medical societies.

Hospitalization.—Each member was entitled to 14 days' hospitalization per year, including room or ward, operating room, anesthetic, X-ray examinations, nursing service, food, and other services and facilities usually provided by a hospital. Obstetrical cases were hospitalized only in pathological cases or upon the advice of the attending physician, and for not more than 5 days.

Members were generally expected to use the one hospital in Nevada County. Patients could be referred to outside hospitals on the advice of two physicians, consulting. This rule was not strictly adhered to; members in the southern part of the county occasionally went to hospitals in adjoining counties without such referral. Payments to outside hospitals were made at the same rate as payments to the local hospital. The patient was personally responsible for any difference between the amount charged by the outside hospital and the amount paid by the association.

Dentistry.—Dental services included extractions, relief from pain, eradication of infection, fillings (amalgam, synthetic, and porcelain), and X-ray examinations. The agreement between dentists and the association stipulated that special consideration be given to children and particularly boys coming of draft age.

Drugs.—At first, participating druggists were authorized to supply members with all drugs prescribed by cooperating physicians. The money budgeted for drugs proved insufficient to pay drug bills in full. After operating at a deficit for about 3 months, participating druggists notified the association that they were canceling their agreement at the end of 1942. Later, the association agreed to pay half of the drug bill for the remainder of the fiscal year. This arrangement was continued until September 1943, after which no drugs were supplied.

Preventive care.—In outlining the experimental rural health programs the Interbureau Committee on Postwar Programs, USDA, emphasized preventive care. One of the general principles was outlined as follows:[2]

> Emphasis should be placed on the prevention of disease and on building positive health and physical fitness. The program should be carefully coordinated with all available health services administered by public and private health agencies.

[2] Interbureau Coordinating Committee on Postwar Programs, op. cit., p. 7.

In reality, only slight attention was given to preventive care in the Nevada County Health Association. Members were expected to obtain such preventive services (like immunizations) through the county health unit, yet practically no steps were taken to acquaint members with the availability and importance of these services.

A nurse was employed by the association in February 1943. She was assigned and administratively responsible to the Nevada County health unit. The plan, although theoretically sound, did not work well. The nurse, who came from another part of the country, had difficulty in adjusting to local conditions, and as a result the service was discontinued in June 1943.

APPRAISAL OF PRACTITIONER CARE

First and second year services compared.—During both years, the great majority of calls, 86 percent in 1942–43 and 80 percent in 1943–44, were office calls. The old picture of a country doctor bumping over rough roads all hours of the night is fading. Faced with a wartime shortage of doctors, participating physicians tried to stretch their services as far as possible by seeing as many patients as they could in their offices.

Many more people in the association used physicians the second year. People tended also to go to the doctor sooner in illness and oftener than before. The number of calls per 1,000 persons increased more than one-third over the first year and the number of cases about 6 percent. There was no sudden rise indicating an epidemic. Rates were consistently higher every month during 1943–44 than for the corresponding month of 1942–43. It is reasonable to conclude, it would seem, that the members were learning more about their health program and were becoming more health conscious.

Rates of service for different groups.—Practitioner calls per 1,000 persons in the association varied widely by section of county, race, number in family, and net family income (table 22). Rates were computed from office records for the sample of 1943–44 members and so apply to one fiscal year only.

TABLE 22.—*Rate of general-practitioner calls, Nevada County health association, by type of call, section of county, race, number in family, and net income, 1943–44 fiscal year* [1]

Item	Per 1,000 persons				
	Office	Home		Hospital	All calls
		Day	Night		
Nevada County	2,574	304	63	133	3,074
Section of county:					
North	2,449	401	120	138	3,108
Central	3,267	337	48	199	3,849
South	2,027	163	14	61	2,265
Race:					
White	3,401	358	87	204	4,050
Negro	1,037	205	19	0	1,261
Number in family:					
1 to 2	5,355	513	79	263	6,210
3 to 4	3,500	385	136	18	4,207
5 or more	1,176	193	16	62	1,447
Net income:					
Under $250	2,604	253	39	123	3,020
$250 to $499	2,290	275	50	153	2,767
$500 or more	4,159	659	227	45	5,091

[1] Based on data for 460 persons in 118 sample families.

Rates of service were highest for members who lived in the central part of the county, for white persons, for members of small families—one and two persons—and for the highest family income group—$500 or more. Conversely, rates of practitioner calls were lowest for members in the southern part of the county, for Negroes, for members of large families—five or more—and for the middle-income group—$250 to $499.

Much of the explanation for the wide variation in rates of service may be found in the racial composition of each group. The rate of total practitioner calls for Negroes was less than one-third that for whites; communities with the lowest rate of service had the highest proportion of Negroes. There is reason to question the accuracy of net-income figures, since some farmers may have deliberately reported less than they made, and others just did not remember; association officials thought that few members reported figures that were too high. It is likely, therefore, that some persons, especially in the lower-income group, were placed in a higher bracket than they should have been. On the other hand, the chances of placing persons in an income bracket lower than that represented by their earnings were rather remote.

Negroes, having paid their membership fees, were entitled to the same services as whites but for a number of reasons did not take full advantage of the program.

Reception-room facilities in doctors' offices, as in most southern communities, were less adequate for Negroes than for whites so Negroes probably did not feel quite so free and welcome in physicians' offices.

"Custom" undoubtedly contributed to holding down the rates of services to Negroes. Through the years Negroes in the county had not been accustomed to using physicians very much. They relied upon herbs, patent medicines, charms, and other superstitions. Confinement cases were attended mainly by midwives. A Negro usually went to the doctor as a last resort after all folk medicine had been resorted to.

Habit runs deep, and people do not change their ways of doing things overnight. Even after everything possible is done to assure parity of medical services for Negroes, they are not likely to take full advantage of those services for some time. Making medical care available to people at a price they can afford to pay is not enough—the services should be accompanied by a wise and vigorous health education program.

All variations in rates of service should not be attributed to differences in race. Distance from the county seat, especially in the southern section, was associated with amount of service; rates of home calls, for example, decreased markedly as the distance from Prescott lengthened. Many farm families in the southern part were 35 or 40 miles from Prescott. Some of these families consulted physicians in adjoining counties because they were much closer. This lack of accessibility to medical centers of the county reveals one of several limitations of health programs that are organized on a single-county basis.

All but two members in the upper-income group were white. Relatively well-to-do white people, therefore, received far higher rates of service in terms of office, home, and total practitioner calls than did other members of the association. This apparently reflected the fact

that upper-income whites had been accustomed to the best medical care available in the area.

Adequacy of general practitioner service.—Practitioner care received by persons in the health association, according to the best medical standards was far from adequate quantitatively for all elements of the membership except small families and families with the highest income. Although there is no entirely satisfactory yardstick by which general practitioner services can be measured, the Committee on the Costs of Medical Care has presented standards of medical care for a general population, from data gathered from 1928 to 1931, inclusive. According to these so-called Lee-Jones standards there should be 6.6 physician calls per person annually, including general practitioners' and specialists' visits for treatment of disease in home, office, and hospital as well as for operative procedures.[3] This figure excludes preventive services; if they were included, the figure would be 7.5. Since that time the number of calls required per case has been greatly reduced for many types of illness. For example, sulfa drugs have reduced the number of visits required in the treatment of pneumonia and other respiratory diseases. On the other hand sulfa drugs mean more urinanalyses, blood counts, etc. In view of the progress of medical science during recent years, it is impossible to appraise the validity of this standard accurately. It is nevertheless the best standard now available.

The rate of practitioner services for Negroes during the 1943–44 fiscal year was only 20 percent of the Lee-Jones standard of 6.6 physician calls per person annually, whereas the rate for white people in the association was 61 percent of the Lee-Jones rate.

Association members in the upper-income group received practitioner services during 1943–44 which were 77 percent of the Lee-Jones standard; those in the middle- and low-income groups, 42 percent of this standard.

There was wide variation in rate of calls by size of family, as follows: Families of one or two persons received service rated as 94 percent of Lee-Jones standard (one-tenth of these families were Negro); families of three or four persons, 64 percent (one-fifth were Negro); families of five or more persons, 21 percent (half were Negro).

GENERAL PRACTITIONER CHARGES AND COSTS

The key position occupied by the general practitioner in the health association is shown by the fact that he received 39 cents of each dollar spent during the first year and 50 cents of each dollar spent during the second year. Although second-year membership was lower (by 250 families) than the first, the amount spent for practitioner care was slightly higher. The relatively large amount spent for practitioner care during the second year was due to increased demand for service.

When the $16 per family budgeted for practitioner care during 1942–43 proved to be only 73 percent of the total of bills submitted, the board of directors twice increased allocations for such service, first to $19.61 per family, then to $24.05.

Charges for the same type of services varied slightly by practitioner, since, according to agreement with the association, they

[3] Roger I. Lee and Lewis W. Jones, The Fundamentals of Good Medical Care, University of Chicago Press, 1933, appendix table V–2, p. 296.

were to submit bills in keeping with their prevailing fees (table 23). One physician who lived in an adjoining county at first participated in the health program but withdrew later because he did not like the "prevailing fee" idea. He thought that all physicians serving association members should receive equal payment for equal services, regardless of the scale of fees for private patients.

TABLE 23.—*Range of general practitioner fees charged Nevada County health association by physicians, by specified service, 1942–43 and 1943–44*

Service	1942–43		1943–44	
	Lowest	Highest	Lowest	Highest
Call:				
Office	$1.50	$2.00	$1.00	$1.50
Home:				
Day	3.00	3.00	3.00	3.00
Night	4.00	4.00	4.00	4.00
Hospital	2.00	4.00	2.00	2.00
Delivery [1]	20.00	35.00	20.00	35.00
Travel, 1-way, per mile	.50	.50	.50	.50

[1] An additional $10 was permitted in cases with complications.

It cost an average of $3.41 in 1942–43 and $3.28 in 1943–44 for travel to make a home call in rural areas (table 24). Cost of travel per call was greater than cost of professional services per call, for both years. The average cost per home call, including travel, was almost three times the average cost of an office call.

TABLE 24.—*Average charge and average amount paid per general practitioner service, Nevada County, Ark., health association, by type of service, 1942–43 and 1943–44*

Type of service	Average amount charged per service		Average amount paid per service [1]	
	[2] 1942–43	[3] 1943–44	1942–43	[3] 1943–44
Calls:				
All types:				
Including travel	$2.34	$2.34	$2.09	$2.15
Excluding travel	1.93	1.80	1.72	1.66
Office	1.72	1.50	1.54	1.38
Home:				
Day [4]	2.87	2.96	2.56	2.72
Night [4]	3.40	3.98	3.04	3.66
Day and night:				
Including travel	6.33	6.32	5.65	5.82
Excluding travel	2.92	3.05	2.61	2.80
Travel:				
Per mile 1 way	.48	.49	.43	.45
Per call	3.41	3.28	3.04	3.02
Hospital	4.54	2.79	4.06	2.56
Deliveries	28.15	32.92	25.14	30.27

[1] Association records did not show total amounts paid for specific types of services; these figures were obtained by applying the percentage rate of payment for each year (89.32 percent for 1942–43 and 91.96 percent for 1943–44) to average charge per service.
[2] Total charges taken from monthly statements were $33 more than shown in auditor's report for 1942–43, and hence were reduced by $33.
[3] 1943–44 figures subject to final audit.
[4] Excluding travel.

SURGEON-SPECIALIST CARE

The proportion of people in the Nevada County health association requiring surgery was only about half as great as in the nearby association of Cass County, Tex. In the Nevada County health

association, the rate for tonsillectomies exceeded the rate for other types of surgery (table 25). The rate for gynecological cases was next and appendectomies third in 1942–43. In 1943–44 appendectomies were second to tonsillectomies, while gynecological cases were third.

TABLE 25.—*Total surgery cases, by type, and percentage change per 1,000 persons, 1942–43 and 1943–44*

Type of surgery	1942-43		1943-44		Percentage change per 1,000 persons
	Total	Per 1,000 persons	Total	Per 1,000 persons	
Tonsillectomies	66	11.3	62	14.8	31.0
Appendectomies	26	4.4	28	6.7	52.3
Gynecological:					
Major	22	3.8	12	2.9	−23.7
Minor	20	3.4	10	2.4	−29.4
Major and minor	42	7.2	22	5.3	−26.4
Fractures:					
Major	1	.2	2	.5	150.0
Minor	5	.9	7	1.7	88.9
Major and minor	6	1.0	9	2.2	120.0
Other: [1]					
Major	36	6.2	26	6.2	0
Minor	34	5.8	26	6.2	6.9
Major and minor	70	12.0	52	12.4	3.3
Cases requiring surgery	222	38.0	184	44.0	11.6

[1] Includes miscellaneous injuries, other than fractures.

This decrease in the rate of gynecological cases probably meant that some long-neglected conditions were cleared up during the first year. One would expect a decrease in the rate for tonsillectomies the second year but the rate actually increased by nearly one-third. The sharp increase in appendectomies might have been due entirely to chance but there is a possibility that members were becoming more health conscious, and went to physicians more readily when signs of trouble appeared.

Seasonal variations in surgical operations.—Volume of surgical operations was decidedly higher for August than for any other month, dropping during the remainder of the year. The chief explanation seems to be that the health association operated on a year-to-year basis, with the fiscal year ending in September. Near the close of the fiscal year, some members thought that the program might not be continued; others expected to drop out the second year. This accounts for the rate of tonsillectomies being so high during August of the second year, and fairly high for August and September of the first year. Then too parents probably wanted to get their children's tonsils removed before school opened.

The number of gynecological cases was greatest for October during 1942–43, and for November during 1943–44—near the beginning of each fiscal year. This would indicate that women had chronic conditions treated rather soon after enrolling in the program.

Surgeon-specialist charges and costs.—The proportion of each dollar spent by the association for surgeon-specialist service was only one-third as much as for practitioner fees during 1942–43 and less than

one-third in 1943–44. Six dollars per family budgeted for the surgeon-specialist care was a small percentage of total charges for each year. The board increased the allocations for the service, however, as it had done for practitioner care, and bills were paid each year at the rate of about 95 percent of charges submitted. This record of payment was probably far better than prevailed in private practice.

Average charge and average payment for service were slightly higher the second year. Typical of prevailing fees for surgery were figures of $85 for appendectomy and $25 for tonsillectomy.

HOSPITAL CARE

Members received more hospital care during the second year, just as they received more physicians' services. The increased number of deliveries in hospitals was encouraging, especially as rate of births for the years was the same.

TABLE 26.—*Hospital services per 1,000 persons provided members of the Nevada County health association and percentage change per 1,000 persons, 1942–43 and 1943–44*

Type of service	1942-43		1943-44		Percentage change per 1,000 persons
	Total	Per 1,000 persons	Total	Per 1,000 persons	
X-rays	160	27.4	56	13.4	−51.1
Anesthesia	201	34.4	162	38.8	12.8
Operating room	205	35.1	161	38.5	9.7
Delivery room	19	3.1	31	7.4	138.7

Seasonal variations in hospitalization.—Amount of hospitalization, like number of surgical operations, was not uniform by months. New admission rates were greatest in September for both years of operation. This meant that admissions were relatively high at the beginning and end of each fiscal year. Some decrease in hospital cases in February, March, and June may be related to seasonal farm work; the people may go to the hospital when there is not much work to do. Such fluctuations would be the same with or without a health association. Other reasons, as we have seen, are connected with the operation of the program itself.

Hospitalization charges and costs.—Hospitalization ranked next to practitioner service in amount of each dollar spent by the association for such care—about 18 cents each year. The $10 per family budgeted for hospitalization, in contrast to amounts budgeted for general practitioners and surgeon-specialists, exceeded the amount needed for such service each of the 2 years. This was fortunate for general practitioners especially, since excess hospital funds were shifted to reimburse doctors, for whose service the budget allowance had proved too low.

In the fall of 1943, when rates of service were running high, it appeared as though hospital bills would have to be discounted considerably. In early winter, the owner of the hospital indicated that his institution could not remain in the program with the prospect of operating at a loss, but he agreed to continue when more funds were allocated for general practitioner care, in which he was likewise

interested. At the close of the fiscal year, hospitalization paid off 100 percent, with money to spare. This showed clearly that yearly rates could not be predicted on the experience of the first few months of a fiscal year.

Charges and payments for each hospital service, like total charges and payments per family for hospitalization, were slightly lower the second year. Charges and payments per hospital-day for the two years are not comparable, since the daily rate included anesthesia, operating room, and delivery room the second year and these services were paid separately during the first year.

TABLE 27.—*Average amount charged and amount paid for specified hospital services, Nevada County health association, 1942–43 and 1943–44*

Type of service	Average amount charged and paid per service	
	1942–43	1943–44 [1]
Hospital days [2]	$4.80	$6.60
X-ray examinations	6.63	8.25
Anesthesia	7.13	----------
Operating room	7.02	----------
Delivery room	9.21	----------
All services, per hospital-day	6.01	5.40

[1] Subject to final audit.
[2] Included anesthesia, operating room, and delivery room for 1943–44, whereas it did not for 1942–43.

DENTAL SERVICE

The rate for combined dental services provided by the association was about the same for both 1942–43 and 1943–44 (table 28). Rates for some of the separate services varied greatly, however. A 19.7 percent reduction in number of fillings per 1,000 persons the second year probably indicated that a considerable proportion of accumulated carious teeth had been filled the first year. Increase in the rate of periodontal treatments the second year, compared with the first, probably indicated that association members were becoming more dental-minded. Many, no doubt, unknowingly had suffered from diseased gums for years, but became aware of the fact only after visiting a dentist while members of the health association.

TABLE 28.—*Total dental services and services per person provided members, Nevada County health association, and percentage change per 1,000 persons, 1942–43 and 1943–44*

Type of service	1942–43		1943–44		Percentage change per 1,000 persons
	Total	Per 1,000 persons	Total	Per 1,000 persons	
Extractions	3,670	629	2,728	653	3.8
Fillings	1,931	331	1,111	266	−19.7
Periodontal treatments	308	53	316	76	43.2
X-rays	158	27	113	27	−.4
Other	511	88	381	91	4.1
All services	6,578	1,128	4,649	1,113	−1.3

Seasonal variations in dental service.—Both the closing and beginning months of each fiscal year found members rushing for dental work, as for other services. The monthly rate was greatest in September for both years.

Dental charges and costs.—The $7 per family budgeted for dentistry—like the amount budgeted for hospitalization—proved more than adequate each year. Although average per family charges and costs were reduced somewhat the second year, average per service charges and costs remained fairly constant. Total charges and costs for dental services totaled $9,066.50 for 1942–43, and $6,605.50 for 1943–44.

TABLE 29.—*Average amounts charged and paid for dental service, Nevada County health association, 1942–43 and 1943–44*

Type of service	Average amount charged and paid per service	
	1942–43	1943–44 [1]
Extraction	$0.96	$0.97
Filling	2.10	2.12
Periodontal treatment	1.84	2.01
X-ray examinations	1.35	3.24
Other	1.39	1.56
All services	1.38	1.42

[1] Subject to final audit.

DRUG SERVICE

Erratic monthly rates for drug services reflect the rough sailing of the drug program during the first and only fiscal year it operated. At first the association paid for all prescribed drugs; then was forced to cut the amount to half the total cost, the other half being paid by the member. The monthly rate of prescriptions dropped 19 percent when the association paid for only half of drugs in the 6-month period March to August 1943.

There were evident reasons for this decline in number of prescriptions filled: (1) Some members could not afford drugs even at half price; (2) many members asked for less medicine when they were required to pay half the cost; and (3) physicians were a bit more cautious in writing prescriptions for low-income people who had to bear half the cost.

Charges for prescriptions averaged 92 cents each during the period October to December 1942, when the health association paid the entire bill. When the members were paying half, the charges rose to an average of $1.02 per prescription.

The amount originally budgeted for prescribed drugs was $7 per family. Total drug charges to the association during the 6-month period during which the association paid half of the prescription charge amounted to $5.08 per family, or a total cost of $10.16 when converted to an annual basis. Thus on even a 50–50 basis of payment the amount originally budgeted to pay 100 percent of drug bills was far short of adequate. The 116 sample families reporting purchase of drugs, prescribed and otherwise, during 1943–44 when the association supplied no drugs, spent an average of $23.44 per family—more than many of the families paid in total annual health association fees.

NURSING SERVICE

There is no available measure of the amount of nursing service provided by the association from February 10 to June 20, 1943. Assigned to the county public health unit, the nurse gave immunizations and performed other duties ordinarily expected of a regular public health nurse.

The amount spent by the association during the time a nurse was employed was $587.95, or 41 cents per family for the fiscal year. A surplus of $3,007.05 allocated for nursing service, reverted to the general fund.

SERVICES RECEIVED BY MEMBERS WITHIN AND WITHOUT THE ASSOCIATION

As a rough measure of the extent to which member families used services offered through the health program, a tabulation was made of families in which any member used a specified service at least once during 1943–44 (table 30). A similar crude measure was used to indicate the extent to which member families went outside their association for medical care. In some cases services outside the association were paid for personally by member families on a fee-for-service basis, even though they could have received some of these services through the association without additional cost.

TABLE 30.—*Percentage of 118 sample families in Nevada County Health Association who received specified kinds of service through the association, by section of county, by race, and by income, 1943–44*

Item	Percentage receiving service of—					
	General practitioner	Surgeon-specialist	Hospital	Dentist	One or more kinds	None
Section of country:						
North	91.1	11.1	22.2	40.0	95.6	4.4
Central	87.2	12.8	23.1	38.5	89.7	10.3
South	79.4	8.8	20.6	55.9	91.2	8.8
Race:						
White	88.6	14.8	29.5	44.3	93.1	6.9
Negro	80.0	0	0	43.3	90.0	10.0
Net income, 1942:						
Under $250	80.8	2.1	12.8	34.0	89.4	10.6
$250 to $499	88.5	11.5	21.3	47.5	93.4	6.6
$500 or more	100.0	50.0	70.0	70.0	100.0	0
All families	86.4	11.0	22.0	44.1	92.4	7.6

Of the sample families, 7.6 percent did not use even one service provided by the association during 1943–44. General practitioner care, as would be expected, was used by a greater percentage of member families than any other, yet 13.6 percent of the families did not even use that key service. Less than half the families went to a participating dentist during the year. Likewise, the services sought outside the program (usually outside Nevada County) by the largest numbers were general medical care and dentistry. None sought surgeon-specialist care outside and only 6 percent went to a hospital not participating in the program.

Use made of association services by members varied according to section of county, race, and income group. In the case of practitioner care, one out of five families from the southern part of the county, one out of five Negro families, and one out of five families with 1942 net incomes less than $250, did not use a participating physician during the entire year. One reason was possibly the deep-rooted custom of not using a physician except in an emergency. Here is additional evidence of the need of a thorough-going educational program.

TABLE 31.—*Percentage of 118 sample families in Nevada County health association receiving health services inside or outside the association, by section of county, by race, and by income group, 1943–44*

Item	Services offered by association [1]		Not offered by associaiton	
	Any service received		Refractions and glasses	Drugs
	Inside	Outside		
Section of county:	*Percent*	*Percent*	*Percent*	*Percent*
North	95.6	9.3	23.2	95.3
Central	89.7	25.6	28.2	100.0
South	91.2	32.4	35.3	91.2
Race:				
White	93.2	23.0	28.7	96.
Negro	90.0	17.2	27.6	93.
Net income, 1942:				
Under $250	89.4	21.7	28.3	100.0
$250 to $499	93.4	20.0	28.3	91.7
$500 or more	100.0	30.0	30.0	100.0
All sample families	92.4	21.6	28.4	95.7

[1] General practitioner, surgeon-specialist, hospital care, and dentistry.

Source: Reports on services inside the association from ledger records of sample families; reports on outside services from sample interview schedules taken in November to December 1944.

In the southern part of the county, however, 17.6 percent of the families went outside the program to see a physician. This indicates the adverse effects of distance. Those people probably thought that it would be cheaper in time and money to go to a nearby doctor than to drive to Prescott and receive medical care without charge.

Percentages of families using dental service, by income groups, are interesting. The smallest percentage of families using dental services was within the lowest income group. Conversely, the largest percentage of families taking advantage of dental services was within the highest income group. It is probable, therefore, that demand was inversely proportional to need.

NEED FOR MEDICAL CARE

A well-rounded health program, let us repeat, should provide preventive, diagnostic, therapeutic care, and educational services. Needs for therapeutic care, obviously, are determined primarily by incidence and nature of illness. Rates of annual illness for the 460 persons included in 118 sample families were computed from association records and compared with expected rates of illness for a general population compiled for the Committee on Costs of Medical Care by Lee and Jones (table 32).

TABLE 32.—*Annual illness rates per 1,000 persons during 1943–44, Nevada County health association, annual expectancy rates of illness for a general population, and actual rate as percent of expected rate*

Disease or condition	Rate per 1,000 persons		
	Expected	Actual	Actual rate as percent of expected rate
Respiratory	459	315	68.6
Digestive	117	194	165.8
Acute communicable diseases	92	11	12.0
Injuries from external causes	54	98	181.5
Puerperal state	24	24	100.0
General diseases	21	65	309.5
Diseases of the skin	20	115	575.0
Nonvenereal female genito-urinary diseases	16	78	487.5
Diseases of the muscles, bones, joints	13	63	484.6
Diseases of the kidneys and annexa	12	85	708.3
Diseases of the heart	12	65	541.7
Diseases of the circulatory system	7	6	85.7
Diseases of the ear and mastoid process	15	11	73.3
Diseases of the eye	8	9	112.5
Nonvenereal male genito-urinary diseases	1	24	2,400.0
Neuralgia, neuritis	13	26	200.0
Neurasthenia and nervous exhaustion	13	0	0.0
Nervous and mental diseases	16	6	37.5
Other and undiagnosed diseases	0	87	.0
All diseases and conditions	913	1,282	140.4

Source: Actual rates based on tabulations of incidence of illness and conditions among the 460 persons included in 118 sample families. Expectancy rates taken from The Cost of Adequate Medical Care, Samuel Bradbury, M. D., University of Chicago Press, Chicago 1937, appendix B, p. 70.

Lee-Jones rates should be considered as a very rough measure only, for they are not strictly comparable to rates for the Nevada Rural Health Association. First, there is the matter of diagnosis. It is almost certain that Nevada physicians and physicians for the general population did not always place similar cases in similar categories. Second, there are reasons why the health program rates should have been higher than Lee-Jones rates. Membership in the health association was composed primarily of low-income farmers. It is well known that the incidence of illness among low-income people is greater than that for the population generally. Moreover, rates for the health association were for a war year, when relatively large numbers of vigorous young men and young women were away from home in the armed services or in war plants, so the membership included a disproportionate percentage of children and old people. It follows that rates would tend to be high because the incidence of illness is greater both for children and for old people than for persons in the prime of life.

It is extremely significant that actual illness rates among members of the association are higher than expected rates in most disease categories. Adverse selection of risks plays a large part in these incidence rates.

CHAPTER VII. WHAT NEVADA COUNTY PEOPLE KNOW AND THINK ABOUT THEIR RURAL HEALTH SERVICE

As a cooperative, organized to provide members and their families essential medical care at a price which they can afford to pay, the health association is responsible for conducting a continuous educational program. Those experienced in work with cooperatives agree that a sound and vigorous educational program is second in importance only to the maintenance of able management and high-grade service.

Members, former members, and families who had never been members (nonmembers) were asked what they knew about some main aspects of the program. The answers are summarized in the first part of this section.

One question pertaining to any program usually asked by outside people is, "What do local people think of it?" A summary of opinions in response to this question as reported by members, former members, families who had never been members, board members, and professional people is found in the second part of this section.

KNOWLEDGE OF HEALTH SERVICE

With respect to purpose.—Large numbers of farmers in the county—health association members, former members, and nonmembers—thought of the health association as a type of relief—a program primarily for the poor. In talking with farmers about the purposes, statements like the following were often heard.

"To help poor classes of people."

"To help poor fellows to get doctors."

"To give a poor man a chance for better health service."

Emphasis upon the relief aspects doubtless were grounded in the fact that Nevada County had a heavy relief load and a large number of Farm Security Administration borrowers during the depression years. Many people in the county, therefore, had difficulty in adjusting to the fact that the health program was designed for all farm families, not merely for the poor.

Some farmers thought of the program in terms of insurance. One of these farmers was doubtless thinking of his annual family membership fee as somewhat like his annual premiums for fire or life insurance when he said, "The purpose of the association is to give farmers better health care on the insurance principle."

Very few farmers appeared to understand fully that the program was experimental. Fifty percent of members, 39 percent of former members, and 36 percent of nonmembers were recorded as having a clear understanding of the purpose of the program (table 33). As large proportions of the three groups had only a hazy conception, and others no knowledge whatever, of the purpose of the health association, a considerable strengthening of its educational program seemed to be necessary.

TABLE 33.—*Knowledge of program purpose, of how membership fees were determined, and of Federal grants to the associations, among members, former members, and nonmembers, Nevada County health association* [1]

Item	Members (N=118)	Former members (N=51)	Nonmembers (N=152)
Knowledge of program purpose:	*Percent*	*Percent*	*Percent*
Clear	50.0	39.2	36.2
Poor	47.2	54.9	40.8
No knowledge	2.5	5.9	23.0
Total	100.0	100.0	100.0
Knowledge of how membership fees were determined:			
Clear	61.9	62.7	46.1
Poor	18.6	9.8	11.8
No knowledge	19.5	27.5	42.1
Total	100.0	100.0	100.0
Knowledge of Government grants to association	69.5	58.8	58.6

[1] Based on interviews made November to December 1944.

With respect to source of funds for financing the program.—Only one member in three knew the amount of his membership fee for 1943–44. It is not surprising, therefore, that about one-third of the members and former members and about half of the farmers who had never been members, did not have a clear knowledge of how membership fees were determined (table 33).

Many farmers probably thought that membership fees were sufficient to finance the program, even though they were hazy as to how the fees were determined. There is danger, first of all, that the 3 out of 10 members and the 4 out of 10 former members and nonmembers who did not know the Government was making grants to the association, will underestimate the cost of medical care. They would probably be the first to complain in case grants were reduced or eliminated, thus making it necessary for the association to raise membership fees sharply.

With respect to services offered.—Practically all association members interviewed knew the medical care services to which they were entitled. One member did not know that surgery was included, and another did not know that he could obtain limited dental services without additional charge.

With respect to management.—A cooperative association delegates most matters of policy and business to a board of directors and to management. In a health association, therefore, the majority of members should at least know the people who manage their affairs. Evidently the manager was well known, for 86 percent of the members could call him by name. In contrast, only 59 percent of members knew that the association had a board of directors: 69 percent could not name even one board member; 26 percent named one; 3 percent named two; 1 percent named three; and 1 percent named all five directors.

OPINIONS OF MEMBERS, FORMER MEMBERS, AND NONMEMBERS

Pertaining to program in general.—The majority of the farmers of the county were favorable to the health association. This, of course, did not mean they thought the program was perfect. Numerous

people, inside and outside the association, readily voiced what they considered shortcomings (table 35).

In practically all cases, members in the sample would say, in essence, "Yes, the health program is a mighty good thing for my family, my community, and for Nevada County." Only one member thought the association was not a good thing either for his family, or his community, or the county. "The doctors don't give good service" he said. Objections raised by the other two members who said the association was not a good thing for their families were:

"Don't want to pay for service not used."

"Association is being abused by those who go to the doctor too much and the doctor will get it out of all of the other people."

Some among the one out of five who said the health program was not a good thing for their families had only two persons in their households at the time so they objected to paying as much as a large family that had a similar income. Others mentioned grievances ranging from "Patients have to go to doctor's office" to "Membership fees are determined unfairly."

Not a single member said that he was getting poorer medical care than he had before he joined the program. Four out of ten members said they were receiving better medical care than previously, meaning not that the quality of care had been improved but that they were getting more of it.

Pertaining to specific phases of program.—Most members who had received medical care services through the association thought well of them (table 34). Three of the six sample members who were unfavorable to physicians were willing to state their objections as follows:

Some wonder whether doctors get a rake-off on high-priced drugs.
Don't get good service from doctors.
Had to pay the doctor extra money when wife died at childbirth.

TABLE 34.—*Opinions of Nevada County health association members, regarding services during 1943–44*

Service	Percent of members			
	Favorable	Unfavorable	No opinion	Total
Physicians	90.7	5.1	4.2	100.0
Hospitals	45.8	0	54.2	100.0
Dentists	62.7	.8	36.5	100.0
Manager	91.5	0	8.5	100.0
Board of directors	30.5	0	69.5	100.0

The one member unfavorable to dentists said that "Dentists use cheap stuff for health association members."

Opinions with respect to management were favorable among all members who knew the manager and members of the board of directors.

Although the large majority of members expressed satisfaction with the program in general, many thought that additional services should be included, as follows: 19.5 percent of members interviewed thought the health program should include drugs; 5.1 percent suggested specialist service; 3.4 percent suggested eye service and glasses; and 0.8 percent suggested dentures.

Since so many members sought and had to pay for glasses and other health services outside the association, the above figures indicate expressed demand for additional services. Still others who had not obtained such outside services probably wanted them even more, since they had needs which they could not financially afford to satisfy.

It was not surprising that most members who suggested additional services specified drugs, since all or part of drugs had been supplied the first year. "What's the use of going to a doctor," some said, "if you don't have the money to buy the medicine he tells you to get?" Many observed that some members abused the privilege of obtaining free drugs the first year, but that with a few precautions and a little education the plan would work.

The association, of course, provided specialist service when the participating family physician made the referral. Some of the six members, therefore, who suggested that the program should include specialist service probably did not know that it was available on any basis. Others probably meant that members should be permitted to go direct to a specialist without being referred by the family physician.

Members who suggested that the program should include eye service and glasses usually mentioned what a good thing that would be for old people and school children. Certainly there was need for it. In a general population the rate for refractions is 175 per 1,000 persons, exceeded only by respiratory diseases with a rate of 459.[4]

Only one member mentioned the need for additional dental services. He thought the association should pay for dentures. As the health program continues, many members will probably come to realize that the dental program, especially preventive services for children, should be broadened considerably.

About half of the members were dissatisfied with the method of determining family fees used in 1943–44 (which was based on income only) as the following figures show: 43.2 percent of the 118 sample members thought membership fees should be based on income but increasing with size of family; 6.8 percent thought it should be the same for every family; 0.8 percent thought it should be based on size of family only; 49.2 percent were satisfied that it should be based on income only.

The fee, as the reader will recall, was computed by taking 6 percent of net family income for 1942 (the family's own report of income being accepted), except that no family paid less than $12 or more than $48.

Members' opinions on method of determining membership fees were closely related to number in family. The larger the family, the greater the proportion of members who thought that fees should be based on family income only. Seven out of 10 members with 5 or more persons in their families covered by their health program contracts thought that fees should be determined on income only, or should be the same for every family. In contrast, the smaller the family, the greater was the proportion of members who said that fees should be based on income, but increasing as size of family increased.

Although 3 out of 10 members did not know, until informed by their interviewer, that the Federal Government was making grants to the association, not a single member said that he objected to such grants. One member recalled that his neighbor objected to the

[4] Samuel Bradbury, The Cost of Adequate Medical Care, the University of Chicago Press, Chicago, 1937, p. 70.

Government's help. This man, although quoting his neighbor, may have been expressing his own opinion.

Association members appeared not to resent outside assistance in paying the cost of medical care for their families, since less than 1 member in 20 (all white) thought that the individual should pay the full average annual cost of medical care for his family. Four out of 10 Negroes, compared with 2 out of 10 whites, were undecided as to what proportion of the total cost per family they should pay. Nearly half of all members thought that they should pay less than 50 percent.

So far as could be ascertained, the majority of members who knew about Government grants to the program thought of them not as relief, but as an equalizing fund somewhat like tax money for educational purposes.

GREATEST CRITICISMS OF PROGRAM

Nevada County people were urged to state frankly their greatest objection to the health program. They were assured that no names would be used and that their objections would be passed along to the management with the hope that shortcomings would be corrected, if possible. In an additional effort to discover objections to the program, people were asked to mention the greatest criticism which they had heard. It was thought that some farmers might be reticent in stating their own objections but would readily tell what they had heard—which, in reality, would be their own views in many cases. This assumption proved especially helpful in learning objections that pertained to financial aspects of the association (table 35).

TABLE 35.—*Greatest personal criticism of Nevada County health association, and greatest criticism heard* [1]

Criticism	Members N–118		Former members N–51		Nonmembers N–152	
	Personal	Heard	Personal	Heard	Personal	Heard
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1. Membership fees too high	1.7	13.6	3.9	11.7	0	6.6
2. Membership fees increased yearly	0	8.5	0	0	0	.7
3. Membership fees determined unfairly	4.3	2.5	3.9	2.0	0	.7
4. Why pay when service may not be needed	.8	3.4	0	0	0	0
5. Does not provide drugs	5.1	2.5	7.9	0	1.3	0
6. Physicians:						
a. Hard to get	1.7	.8	3.9	0	2.6	0
b. Hard to see	1.7	0	0	0	0	2.6
c. Discriminate against members	0	0	2.0	2.0	1.3	0
d. Other	.8	1.7	0	2.0	0	0
7. Members abuse program	1.7	0	0	0	2.0	1.3
8. Too much like relief	0	1.7	0	2.0	3.3	.7
9. Other	3.4	3.4	3.9	2.0	1.3	1.3
10. None	78.8	61.9	74.5	78.3	88.2	86.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

[1] Based on interviews made November–December 1944.

The greatest number of objections (indicated for the most part as heard) by members, former members, and nonmembers alike centered around membership fees—that they were too high, that they were increased every year, or that they were determined unfairly.

This dissatisfaction doubtless arose from the fact that the minimum family fee was raised from $5 to $12 the second year, and raised to

$13 the third year when membership fees were based on 7 percent instead of 6 percent of net annual family income. Reduced Government grants made it necessary to raise fees by changing the formula on which they were based. This was unfortunate, as suggested earlier, for as many controls as possible should have been held constant in the experiment.

The next greatest number of criticisms centered around the physicians, mostly that they were either hard to get or hard to see. Of course, with the wartime shortage of physicians the experiment was operating under a considerably greater handicap than would be the case during more normal times.

Next in number of criticisms were those from people who objected that the program did not include drugs. This would be expected, since the health association paid at first all and then half the drug bill during the first year. Here again an important control was changed in the midst of the experiment—a shift which almost certainly changed the farmers' response to the program.

Other less numerous criticisms are listed in table 35. Some of the criticisms may have been unjust because some of the unfavorable conditions perhaps cannot be corrected fully during wartime. The importance of the educational and public-relations phases of the health program is clearly indicated. Members should be kept currently informed of association affairs and other matters pertaining to their health. The manager should use all effective means—monthly news letter, newspapers, motion pictures, schools, clubs, and personal visits—in reaching association members and prospective members.

REASONS FOR NOT JOINING OR NOT REJOINING ASSOCIATION

Reasons why farmers dropped out of the association or never joined might be found in the list of objections to the program recorded in the preceding pages. With the hope of getting more specific answers, however, the interviewers went one step further. Former members were asked just why they dropped out of the health program, and nonmembers were asked why they had not joined.

One-fourth of those who belonged to the association in 1942–43 but dropped out the next year had moved out of the county, most of them going to nearby areas. Reasons for not joining in 1943–44, as listed for former members, will refer only to people living in Nevada County at time of interview.

(1) About 6 out of 10 former members and 3 out of 10 nonmembers named some aspect of finance as the reason for their not being in the association during 1943–44—they did not have cash at the time, could not afford cost, thought fees were too high or thought that fees were determined unfairly.

(2) The next largest number of farmers reporting reasons as to why they were not in the association indicated a weakness in educational phases of the program, especially in membership campaigns. Approximately 2 out of 10 former members and 4 out of 10 nonmembers said they were out of the association because they just neglected to join, didn't know enough about program, or they were not asked to join. Here the importance of a follow-through is evident; it

would be expected that every prospective member would be invited to join.

(3) Two out of ten people who had never belonged to the association stayed out because they looked upon the program somewhat like relief. These farmers usually replied that they disliked Government help, that they didn't need Government help, or that they could pay their own medical bills. Such statements indicated that the management had not succeeded in getting all the farm families to understand that the program was experimental and that all farm people, high-income as well as low-income, were eligible for membership.

(4) Somewhat more than 10 percent of former members remaining in the county were not eligible for membership the second year because they had earned more from nonfarm work than from the farm during 1942.

OPINIONS OF BOARD MEMBERS

Board members, three of whom had wrestled with problems pertaining to the health program since its inception and before, were unanimous in the opinion that the association was a mighty fine thing for Nevada County farmers. The chairman of the board said:

Now I'll tell you how I see this thing. Our health association is a wonderful thing for our farm folks. I just don't believe the Government ever started a program that meant more to Nevada County farm families than the health program—

and here he indicated what he considered some program shortcomings and difficulties, as all board members did—

especially if we had plenty of doctors and if drugs were furnished. Just lots of members are getting the best medical care they ever had. That goes especially for dental work. You know, our country folks just didn't have much dental work done before they joined the association.

So the story as told by each board member was, in effect, that their neighbors and friends were obtaining better medical care than ever before. Many cases were cited of members going to the hospital to clear up chronic conditions which had persisted for years—conditions doubtless which would have remained had the people not joined the association.

Why farmers joined health association.—Board members had assisted with membership campaigns, so were familiar with motives which prompted people to join. Many farmers join, they said, because they know their families will get a bargain in medical care.

The thinking people—

replied one board member—

tell me they realize medical care in the association is costing them less than it would outside because the Government is paying part of the bill.

The idea of health insurance likewise was pointed out.

A lot of farmers—

observed one member of the board—

know from their own or some neighbor's experience what a spell of sickness and big doctor bills mean. These folks think of the health program somewhat like burial insurance, and most of them have that. They had rather pay so much a year, even if they don't have much sickness some years, than to have a big doctor and hospital bill one year that would just about break them.

Why people did not join or rejoin association.—All board members were questioned as to why people dropped out of the association or failed to join. High lights of their replies were as follows:

1. Some folks just don't have the money, especially in one lump sum. Many families would find it easier to pay membership fees in two or more installments.
2. There is a shortage of physicians, and those who are left rarely make home calls in the country. It is hard for many farm people to get to town, and when they get there they often have to wait many hours to see a doctor in his office.
3. As organized on a county basis, the program does not serve people in all parts of the county equally well. The county seat of Prescott, where most medical-care services and facilities are available, is in the northwest part of the county. Many farm families, especially in the southern part, have been accustomed to obtaining medical care outside Nevada County. Outside doctors and hospitals of course, do not participate in the program to the same extent and in the same spirit as do those inside the county.
4. Method of basing membership fees on income causes dissatisfaction. Many families complain that some of their neighbors are better off than themselves, yet pay lower membership fees because they reported their income below what it was.
5. Association does not provide drugs. Members were in the habit of expecting drugs the first year when all or part of them were furnished.
6. Procrastination: Some people, although interested, just neglect to join until they are asked to do so, and it is difficult to see all farmers personally.
7. Many farmers are working at least part time at a war plant, and they think they are just too busy to get to the health association office to join.

Only one board member thought that the program could be made self-supporting during ordinary times. Others thought that from one-third to half of the families would not ordinarily have enough income to pay membership fees in full.

OPINIONS OF PROFESSIONAL PEOPLE

Physicians.—All Nevada County physicians taking part in the program—six white and one Negro—were favorable to the health association.[5] No member of the profession gave stronger support to the program than did the president of the local county medical society, formerly president of the Arkansas Medical Society. He spent considerable time and effort in 1942 in obtaining the State society's approval of the proposed experiment in providing medical care for farm people. The society was assured that the proposed association would in no way interfere with physicians in the practice of medicine and that patients would have free choice of physician. All local doctors agree that these principles have been adhered to.

Not all local doctors were in full sympathy with the association when it was inaugurated.

[5] The local eye, ear, nose, and throat specialist served association members only occasionally on a referral basis. Other surgeons in the county were general practitioners as well.

When the program started—

one of them remarked with a smile—

I just didn't think much of the idea. But I feel differently now after seeing the thing operate for 2 years. The program has worked out splendidly, and I am for it.

Members of the profession, like the board of directors, were in agreement that a substantial proportion of members were receiving better medical care than ever before.

Not only are members receiving better medical care—

observed one doctor—

but they are becoming "health-wise." Many people in the association have a greater appreciation of preventive medicine than formerly, and patients are coming to us earlier. Thus, to the very great benefit of patients, we are able to make diagnoses earlier.

Some members abused the service through needless or excessive calls when the program first started, according to physicians. Such abuse, not widespread, occurred because this was a new service which people had not been taught to appreciate and to use properly, and because they could get the drugs free. In the fall of 1944, physicians reported that the proportion of malingerers was no greater than would be expected in a similar population in private practice.

Most physicians thought it best for the association not to provide drugs. The general tendency of people to expect a prescription when they see a doctor may have put the physicians under greater-than-usual pressure when drugs were provided. A minority opinion was voiced by the Negro doctor.

As you know—

he said—

my people have very little money. Often I call on a patient, write a prescription for needed drugs, and the patient replies that he has no money to pay for the medicine. So you see how I am handicapped in trying to treat the patient. My people don't like to take medicine, so I would have no fear of their abusing the privilege if drugs were provided.

All physicians believed it would be to the mutual advantage of the association and the profession if they could have a closer working relationship with the board of directors. This could be accomplished, most of them thought, by having one of their number attend board meetings. One physician said he believed it would be better to have one doctor as a regular member of the board.

The payment record of 89 percent in 1942–43 and 92 percent in 1943–44 for general practitioner, and 95 percent in both 1942–43 and 1943–44 for surgery was satisfactory. Most physicians were frank in admitting that collections from the association were higher than those from private patients, especially during ordinary times. One doctor complained mildly that the payment record was a bit low. He thought, too, that there should be more leeway in fee schedule for cases when complications develop, and in cases of home calls when weather or roads were adverse.

Only one of the seven participating county physicians believed that the program could be self-supporting over a period of years. Many low-income families, they said, will always need some help in order to obtain adequate medical care.

There should be certain health requirements for membership—

cautioned one physician, a view expressed also by others. He continued—

As it is, a person may join the association today and in a few weeks, or even sooner, call the doctor for a confinement case or go to the hospital for the correction of some old chronic condition. That just isn't good business, and it isn't fair to the association. Some history should be taken for each member of a family, when the family applies for membership.

Opinions of physicians in counties adjacent to Nevada who did some practice for health-association members varied along the scale from strong approval, through mild approval, indifference, and, in one case, to strong opposition. In the main, this group of doctors felt pretty much on the outside, that they were not part of the professional group serving association members, and that they had no voice in contractual arrangements. Said one of these men:

If folks want to know what I think of the Nevada County Rural Health Association, you might just tell them that the thing ain't worth a ———. I'm opposed to the program for the following reasons:

1. It is a step toward federalized medicine.
2. I have nothing to say in setting amount of fees.
3. The program is abused by members.
4. The program is abused by doctors.
5. Doctor bills are scaled down and have not been paid 100 percent.

In contrast, another out-of-county physician said:

I'm for the program 100 percent. Call it socialized medicine or what you will, it is helping a lot of farm families to get the best medical care they ever had, and that in the face of a wartime shortage of doctors. Every person ought to have access to the best medical care available, regardless of his ability to pay.

Several physicians mentioned the need for modern hospitals and clinics in reach of rural people.

As it is today—

one said—

hospitals and doctors are concentrating in large cities. If adequate facilities such as hospitals and clinics were put within reach of all people, then doctors would be willing to practice in smaller places. That is the only hope of solving the acute medical-care problem faced by farm people. The old-time country doctor is fast moving from the scene.

Dentists.—The two Nevada County dentists, both of whom participate, are highly favorable to the program. Members, they said, were receiving better dental care than previously, many cumulative defects had been cleared up, and they were now coming to the dentist at the first sign of trouble. Previously, they added, many people who are now in the association postponed a visit to the dentist as long as possible because of the expense.

Both dentists agreed that the health association did not interfere with technical aspects of their practice in any way and that patients were free to select the dentist of their choice. They were so impressed with the prepayment plan that they would welcome extending the program to include town families, not merely farm families, especially if the program could be broadened somewhat.

The program is splendid as far as it goes—

said one dentist—

but it is not adequate. For example, I can pull a person's bad teeth, but I can't provide him a plate. In fact, I can't even replace one tooth. This is unfortunate, since the replacing of only one tooth often saves others.

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Members abused the program very little by demanding unnecessary dental services, according to the dentists.

The average person—

said one—

just does not hanker after having a tooth ground on unless there is a need. Some few people have been inclined to have their teeth cleaned more often than is necessary but even that is a sign that folks are thinking more of prevention.

Income of the rank and file of Nevada County farmers is so low, opined the dentists, that the program could not be made self-supporting during ordinary times. They believed, however, that the majority of families could afford to pay the full membership fees during the war period.

Both Nevada County dentists suggested that it would be mutually helpful if they could meet with the board of directors about twice each year to discuss various aspects of the dental program.

Dentists in counties adjacent to Nevada did some work for the association. Some were highly favorable to the program, others were indifferent. In general, they, like out-of-county participating physicians, felt that they were not exactly a part of the professional group serving association members. They had no voice in year-to-year contractual arrangements between dentists and the association.

One out-of-county dentist complained:

It was my understanding that I should submit bills for health association members according to the same scale of fees charged private patients. When I did so, however, fees for services other than extractions were scaled down before a percent of payment was applied. As a result, since I can get more work than I can possibly do from cash-paying patients at regular fees, I am forced to limit work for members mostly to extractions. Then there's another thing—

he added—

I am for the prepayment idea, but make it scientific. The budget should be set up with allocations for each individual, rather than for each family. Hence, membership fees should increase as size of family increases.

Druggists.—

The drug aspect of the health program broke down—

said one druggist—

primarily because too little money was budgeted for drugs. From my records over a long number of years, I estimated that drugs would cost about $10.75 per family. My fellow druggists in town estimated that around $10 per family would be about right. The association, however, budgeted only $7 per family for medicines, and that proved insufficient, as we predicted.

All druggists agreed that members at first abused the privilege of obtaining free drugs. This, of course, meant that physicians were partners to the alleged abuse, since the agreement specified that medicines should be supplied to members only upon prescriptions from participating physicians. Some druggists thought that abuse was greatest by Negro and low-income white families. Others observed that the tendency to act as if they were getting something for nothing was just as great among high-income as among low-income families.

Nearly all abuse subsided abruptly, according to reports, when the association started paying one-half the drug bill, members individually paying the other half. From their point of view, druggists were pleased with the 50–50 arrangement, which, however, was discontinued in 1943–44.

Most of the druggists believed that, after 2 years, the farm families of the county had advanced in their understanding and appreciation of the program—of what they had at stake. Hence, they said, the drug program probably could be restored on a 100-percent basis without undue abuse by members, provided a thoroughgoing educational effort accompanied the restoration. At any rate, they would like to see the drug program restored on a 50–50 basis.

One druggist cautioned that in order to work successfully, the drug program, like any business, would need a rigid, clear-cut system of checking and auditing.

> Every precaution should be taken—

he said—

> to assure legitimate need for drugs, and legitimate drug bills. All prescriptions should be written and signed by physicians according to Pharmacopoeia of the United States or National Formulary.

The prepayment plan of medical care, in general, was looked upon with favor by the druggists, as by physicians and dentists.

CHAPTER VIII. APPRAISAL

Out of extensive studies made by the Committee on the Costs of Medical Care four major problems evolved as follows:[1]

1. Effective and economical provision of medical care for the sick.
2. Payment for medical care.
3. Application of existing knowledge to the prevention of sickness.
4. Interrelation or coordination of medical agencies.

An appraisal of the Nevada County Rural Health Service will reveal the extent to which the foregoing problems were attacked, and with what success. To obtain a comprehensive view of the plan, however, various aspects of the program will be measured in some detail.

10-POINT MEASURING STICK

A noteworthy group of physicians, social scientists, and laymen met in Chicago in April 1944 to consider ways and means of developing more adequate medical care and health services for rural people. At that time Michael Davis suggested a 10-point measuring stick for appraising the advantages and disadvantages of an existing or proposed medical-care program.[2] Points on the suggested scale included: (1) Coverage, (2) freedom, (3) unity, (4) area to be covered, (5) local responsibility, (6) supply of physicians, (7) preventive work, (8) paying for care, (9) paying the doctor, (10) quality of care.

Merits and demerits of the Nevada County program will be considered point by point, with scope of care included as part of item 10.

Population covered.—As health association membership was limited to farm families, nonfarm people were excluded. Only 39 percent of the total county population was covered by the program during 1942–43 and 29 percent during 1943–44.

Although the medical-care plan was open to all farm people in the county, about 5 out of 10 persons the first year and 6 out of 10 the second were not covered. The plan, therefore, was by no means comprehensive with respect to segments of the county population covered.

Moreover, all segments of the county population were not covered uniformly. During 1942–43, the membership included 59 percent of eligible whites and 50 percent of eligible Negroes. Membership the following year comprised 49 percent of eligible whites and only 30 percent of eligible Negroes. Many Negroes were concentrated in the southern section where membership likewise dropped abruptly the second year. Much of the reduction in membership among Negroes

[1] I. S. Falk, C. Rufus Rorem, Martha D. Ring, The Costs of Medical Care, the University of Chicago Press, Chicago, 1933, p. 578.

[2] Michael Davis, in Medical Care and Health Services for Rural People .a report of the conference on rural health held at Chicago, April 11–13, 1944, under the sponsorship of Farm Foundation, 600 South Michigan Avenue, Chicago, pp. 76–78.

the second year could be accounted for by a lack of a vigorous membership campaign to reach them.

Representation in the association varied widely according to sections of the county. Membership included about half the eligible persons from the central section both years; 43 percent from the northern section the first year, with an increase to 51 percent the second; and 66 percent from the southern section in 1942, but with a sharp drop to only 31 percent in 1943–44.

Freedom.—Members of the association were free to choose their physician, dentist, hospital,[3] and druggist (first year) within Nevada County and to some extent out of county. Participating physicians and dentists were members of their respective county medical societies.

Limited personnel and facilities actually made the range of choice very narrow. Some 85 to 90 percent of members hospitalized went to the one hospital in the county. Similarly, there was only one active dentist in the county most of the first 2 years the program was in operation, and he did the majority of dental work for association members.

Physicians, dentists, druggists, and hospital superintendents maintained the same relationships with health association members as with the public generally. They were free to accept or reject patients and to perform their professional duties normally and without interference.

Unity.—There was unity in the plan so far as farm people were concerned. The program was available to all farm persons rather than to a particular group, such as members of a single organization.

Some people in the county continued to think that the program was, or should be, for low-income families only. Such an attitude was understandable since grants for the program were made through the Farm Security Administration and the health association had been preceded by a medical-care plan for FSA borrowers only.

Farm and nonfarm distinctions are difficult to draw in a county like Nevada, which is primarily rural. Many people live on a farm, do some farming, and yet work part time off the farm. In general, both farm and nonfarm people used the same medical services and facilities. Unity among citizens could have been stronger had the health program been available to all residents of the county, eliminating completely the town-country distinction.

Area covered.—Nevada County cannot support adequate preventive, diagnostic, and curative medical services solely on a county basis. This was recognized by the State department of public health, from the standpoint of preventive care, when Nevada County was made part of a three-county unit.

The question of geography likewise has an important bearing on medical-service areas. Farmers in the southern part of Nevada County frequently buy and sell at centers in adjoining counties. When 66 percent of them joined the health association during 1942–43, they shifted their medical-care center to Prescott to a considerable extent while their trading center remained elsewhere. One physician who was located in the southern section the first year, was not there the second. At any rate, the plan did not work out well, and physicians refused to make long trips from Prescott to see people in the

[3] Only one hospital in county.

southern part of the county. People found it inconvenient and generally unsatisfactory to go to Prescott. Thus only 31 percent of eligible persons in the southern part of the county joined the association the second year. People in that territory probably would have obtained better care had adjoining counties been included in the program on the same basis as Nevada.

Local responsibility.—Impetus for the program came from the county land-use planning committee, composed mainly of farm men and women and representatives of agricultural agencies. Officials of other agencies, such as the county superintendent of schools and the county director of public welfare, likewise took an interest in the program.

Association affairs were controlled and administered by local people. General policies were determined by a board of five directors, all farmers and members of the association, elected by the membership. For advice on how to do their job, the board of directors leaned heavily on such people as the regional health services specialist of the Farm Security Administration. They were free, however, to make their own decisions in their own way.

In discharging their responsibilities to the membership, the board experienced difficulty in obtaining and holding a qualified manager. There were two managers during the association's first 2 years, and the position is now vacant again. People properly trained for the position were scarce—dreadfully scarce during wartime. In addition, persons who would be interested in a permanent job are reluctant to accept a position which appears temporary, for this is an experimental program.

In working out agreements pertaining to health services joint responsibility was assumed by the board and members of the medical and related professions. Physicians thought that there should be a closer working relationship among members of the professions and the board of directors, to the mutual benefit of each. This could be accomplished, in their opinion, by having a representative of each profession meet with the board quarterly or semiannually. One physician said that one member of the board should be a doctor. This suggestion appears less appropriate than the former one since the board represents, hence speaks and bargains for, members of the association.

Supply of physicians.—There was a shortage of physicians in Nevada County in 1944, but the supply of doctors did not appear to be affected by the health program one way or another. Conducted as an experiment, with no assurance of funds beyond a current year, the program would hardly attract young physicians to the county—even if they were available.

Preventive work.—Aside from its brief venture in providing the services of a public health nurse, attached to the county public health office, the association did little in preventive medicine. With distinct advantage to members, it could have worked much more closely with the Health Department. The need for a strong health education program was evident on every hand.

Payment for care.—Of the four major problems listed by the Committee on the Costs of Medical Care, method of paying for services was the only one on which the Nevada health association made a vigorous

frontal attack. In general, costs of medical care may be borne as follows:

1. Fee-for-service by individuals.
2. Insurance.
3. Taxation.
4. Combination of insurance and taxation.

The Nevada County plan was a combination of the voluntary insurance principle and taxation. Farm families joined together in a cooperative, and presumably they paid membership fees according to their means. The difference between the amount of membership fee for a family and the average cost of care per family was paid from Government grants obtained from taxes.

The economic barrier between patient and medical care was greatly reduced, although not completely eliminated. Moreover, costs were anticipated and regularized. From the viewpoint of the family budget, the prepayment plan on a group basis was a great advance over the traditional fee-for-service system where costs fall unevenly, and at times with such tragic force.

As a venture in health insurance, the Nevada plan was not actuarially sound. Membership was confined to the rural segment of the population and was loaded heavily with families in the lower income brackets. There were no membership restrictions based on a medical history of applicants. People with long-standing chronic conditions and women expecting to be confined in a short time were accepted on the same basis as others. Furthermore, the experiment was conducted during war years when many vigorous young men and young women were away in the armed forces or on war jobs. Disproportionate numbers of children and old people, therefore, were included in the membership. Collectively, persons in the association could not be considered normal risks. Incidence of illness, hence demands for service, were almost certainly higher than would be expected for a normal population.

From the standpoint of risk alone, it is clear that per family cost of operating the program was much higher than would be necessary for a group including all segments of the population—rural and urban, well-to-do and poor. Cost figures for the Nevada County health association, therefore, would not be applicable as a basis for estimating the medical-care bill for a program covering the total population in a county or larger area. Nor should it be concluded that either the quality or quantity of services offered came up to adequacy.

Some problems were encountered in connection with the plan used by the health association for determining membership fees. First, the ability-to-pay principle was not strictly adhered to. The minimum annual membership fee was $5 the first year and was increased to $12 the second. Many families, such as old-age pensioners, could not join because they were unable to pay even that small amount, so the program was not equally accessible to all families on the basis of ability to pay.

Another inconsistency was evident in the method of basing fees on net cash income. Obviously, the method worked to the advantage of farmers who produce large quantities of products to be consumed at home, but to the disadvantage of farmers who did not. Farm laborers who had only incomes from wages were hit especially hard by the formula.

Basing membership fees on an income statement submitted by the farmers themselves posed a problem. As a rule, Nevada County farmers had no records of their business operations and income statements, except for major items, were based on rough estimates and guesses. Association officials believed that the guesses with respect to income were rarely higher than they should have been, so that fees for some members were probably lower than their actual ability to pay would indicate.

Paying the doctors.—Bills for all medical-care services performed for members of the health association were submitted by the physician to the manager according to the traditional fee-for-service method. Fee schedules, according to agreements, were set so as to be identical with those charged to the general public. Bills were paid to the extent of funds allocated for a given service. Eighty-nine percent of the amount of general practitioner bills was paid the first year and 92 percent the second; 95 percent of the amount of surgeon-specialist bills was paid for 1942–43 and 95 percent for 1943–44.

One fact seems clear: Compensation for professional people in the medical-care field should be adequate enough to safeguard standards, and method of payment should be calculated so as to encourage preventive care. Safeguarding the interests of patients and professional groups alike is an important consideration in arriving at the most desirable method.

Scope and quality of care.—Services and facilities offered to members of the Nevada Association were not comprehensive. After supplying all drugs for 3½ months of the first year, this aspect of the plan broke down. The association then paid one-half the amount of prescription bills for members for the remainder of the fiscal year. No drugs were included in the program the second year. Experience, as yet, has not indicated the best method of handling the drug phase of a medical care plan.

Dental services were not all-inclusive. The association did not pay for dentures, for example. One dentist said:

> I can pull a member's teeth, but I can't put a set in. That's leaving a person in bad shape, isn't it?

Another limitation of the program was that confinement cases were hospitalized only upon advice of the attending physician, and for not more than 5 days, a period less than medical opinion considers adequate.

Provisions for refractions and eyeglasses were not included in the list of services supplied members. Several interviewed persons commented that such a service would be especially helpful to children and to old people.

What about the quality of care?—The grant agreement between the health association and the United States Government set up a standard of qualifications for the professional groups which would serve members of the association. The document stipulates that grant funds may be used to pay for medical care furnished members—

> under agreements entered into by the grantee [the health association] with doctors of medicine licensed to practice medicine in the State of Arkansas, hospitals, druggists, and dentists, which shall have been approved in writing by the Government.[4]

[4] Grant agreement, sec. III, par. (a), p. 1.

Association officials in the first 2 years had given little thought to ways and means of improving the quality of care available to members. They generally believed that the health program had not influenced the quality of care offered, but they also agreed with professional personnel and members that the program had provided the quality and types of health services available in Nevada County to more people, in greater volume, earlier in the course of illness and at less cost to the family than other means had provided.

The Nevada County Association is now planning its program for the fourth year's operation and the local board is struggling with many of the problems pointed out in this chapter. Many of the weaknesses have already been overcome.

WHEELER COUNTY RURAL HEALTH SERVICE, 1942–44

A Capitation Plan

CHAPTER IX. INTRODUCTION

Wheeler County is located in the Panhandle of Texas. The medical resources of the county are located either in Shamrock or Wheeler. Since Shamrock is situated on the southern edge of the county, much of the territory served by its doctors lies in adjacent Collingsworth County. The area served by Wheeler doctors includes all of the northern part of the county as well as about half of the southern section.

Although 10 physicians for Wheeler County were listed in the 1942 edition of the American Medical Directory, there were only 6 when the Wheeler County Rural Health Service began operation on July 1, 1942. All of these losses occurred in Shamrock, which retained only four of its eight doctors. Wheeler's two doctors remained in practice. When the rural health program started, the county had only 1 doctor per 2,068 population, whereas a short time earlier the ratio had been 1 to 1,241.[1] This was somewhat better than for rural areas in general, which, prior to the war, had 1 doctor per 1,400 population, but it was not as good as for the United States as a whole, for which the prewar average was one physician per 800 population.[2]

Normally there are three dentists in the county, but during the first year of operation of the Wheeler County Rural Health Service one of the Shamrock dentists was unable to practice because of poor health. Of the two remaining dentists, only the one in Wheeler participated in the program. Even with 3 dentists in practice, the county had only 1 per 4,137 population. This was considerably lower than the ratio of 1 dentist per 2,100 population for the United States as a whole.

Several changes in hospital capacity and administration occurred in 1942. At the beginning of the year, there were 3 privately owned, general hospitals having a total of 53 beds and 11 bassinets.[3]

Other health facilities before the experimental health program included a venereal-disease-control program, started in 1940, under the direction of the county health officer who was one of the two Wheeler physicians. Indigent sick were assisted by the county commissioners' court, which for the 2 years preceding the experimental health program had expended annually over $2,500 for this purpose. Such expenditures were approximately $950 for the first program year.

In 1940, at the initiative of Wheeler physicians, schools in the Wheeler area were visited and tuberculosis tests as well as immunizations for typhoid, smallpox, and whooping cough, were administered

[1] Based on the 1940 population.

[2] Michael M. Davis, America Organizes Medicine (New York: Harper & Bros., 1941), p. 62, quoting R. G. Leland, M. D., Distribution of Physicians in the United States, Report by the Bureau of Medical Economics (Chicago: American Medical Association, 1935).

[3] Cf., the Wheeler County Rural Health Service, Mary Lou McIlhany, pp. 10–12, Master's thesis (typed). School of Social Service Administration, University of Chicago. September 1944.

to school children at the expense of the schools. Where presence of tuberculosis was suspected follow-up tests were optional with families. No public health facilities were offered to mothers and infants. The Parent-Teachers Association during 1 year employed a dentist to visit 20 schools.

Desire for a program offering complete health services apparently was part of the people's way of meeting their problems rather than a result of any temporary stimulation of interest. People were not unusually worried over disease or accidents. It was men, not women, who were best informed about the program and who had taken initiative in developing the program.

An examination of health textbooks used in the schools revealed that no material was included relating to improvement of health, organization of dental, medical, and hospital care among rural people, nor was there any reference to various approaches rural people have made to their problem of obtaining better health care. Hence, it must be concluded that local interest in the improvement of health service and in the health association had developed rather independently of the public schools.

CHAPTER X. DESCRIPTION OF WHEELER COUNTY RURAL HEALTH SERVICES ASSOCIATION

DEVELOPMENT OF PROGRAM

In 1940 the Wheeler County Land Use Planning Committee referred to local health needs as follows:

> We propose that medical care for rural people be put on a more equitable basis through a program providing adequate medical attention for rural areas. A large number of the people do not receive adequate medical attention. The problem is partially caused by the cost of medical attention in rural areas. It is hoped that * * * by listing the problem a solution will be worked out both to the advantage of the farm people and to the advantage of the people providing medical services.[1]

This committee also urged provision of "a thorough health examination for all school children at least once a year." [2]

Contract rural medicine at this time was not new to the Panhandle. Wheeler County farmers were already familiar with the community hospital at Elk City, Okla., 40 miles away. There, for prepaid annual family fees of $25 paid in advance, and after purchase of a share in the cooperative, members had been receiving stated reductions in charges for medical, surgical, and hospital services for nearly 15 years.[3]

Two prepayment plans also had operated in Wheeler County previously. In September 1940, an unincorporated medical cooperative was organized to serve the FSA clients of Gray and Wheeler Counties. The annual fee of $26 covered general practice, surgery, and hospitalization. The cooperative was dissolved when the Wheeler County Rural Health Service began operation on July 1, 1942, and its 186 members were transferred to that association.[4]

Late in 1940, Wheeler physicians announced a prepayment plan for surgical, hospital, and general practitioner services. Annual family fees were $17.50 for a single-person household, $35 for two- or three-person families, $37 for four-person families, $39 for five-person families, $41 for six-person families, and $43 for families of seven persons or more.

Some 300 or more families soon entered this physicians' prepayment plan and were reported to have found it very satisfactory.

After a year's operation, sponsors of the Wheeler prepayment plan announced a new "health insurance program" sponsored by the United States Department of Agriculture, offering five services:

> Office and home calls of the physician of your choice, surgery whenever necessary, prescribed drugs, hospital service, and such dentistry as may be necessary to health. This program * * * is extremely broad, being designed to cover

[1] Agricultural Land Use Planning in Wheeler County, Tex., Wheeler County Land Use Planning Committee in cooperation with the Agricultural and Mechanical College of Texas and the U. S. Department of Agriculture, October 1940, p. 32.
[2] Ibid., p. 43.
[3] M. A. Shadid, A Doctor for the People, Vanguard Press, New York, 1939.
[4] Mary Lou McIlhany, The Wheeler County Rural Health Service, master's thesis submitted to the faculty of the School of Social Service Administration, University of Chicago, September 1944, pp. 14–15.

the health needs of every family, regardless of size * * * and the best group medicine plan we have found.

Fees were explained in notices to clients, and the program was heartily recommended as "one of the best investments that any farmer or farm laborer can make." In February 1942, Wheeler physicians invited clients to their offices, at different times, to have the new health program explained by a local person working in the doctor's office to explain and work out applications. The doctors wrote as follows:

We are very anxious for all farmers in our territory to have an opportunity to carry this insurance.

A local person was also employed in offices of Shamrock physicians to explain the program to farm people in that medical-service area. There were no other medical areas in the county except for indefinite fringes at county margins.

Wheeler Hospital, operated by two physicians, expanded its plant in preparation for the program. The program started in July. One of Shamrock's two hospitals, the oldest and largest in the county, closed in October, and about this time Shamrock's other hospital, formerly identified with a physician's family, was transferred to a Catholic nursing order.

SERVICES OFFERED

For the association there were no entrance examinations, no age limit, no waiting periods. Members received general practitioner care, surgery, hospitalization, and referral specialist care during the 3 years of operation. Dentistry and prescribed drugs were included only during the first and third year.

Unless otherwise indicated, the following service definitions were the same for all 3 years:

1. General practitioner care, except nonemergency home calls (doctor to decide when an emergency exists), and nonemergency office calls at night. Tonsillectomies and deliveries considered to be general practitioner services, except hospital care.
2. All surgery performed by participating doctors or by specialists upon referral.
3. Hospitalization and operating room as often as necessary; X-ray examinations and laboratory services; 15-day stay in hospital (ward room) during any one case of illness (10 days for second and third years) for as many readmissions as necessary; private room upon payment by the patient of additional daily charge; complete obstetrical care (ward room), 3-day stay in hospital; 24 hours' stay in hospital for tonsillectomy.
4. Use of any specialist services (except eye refractions) authorized by family physician.
5. Dentistry, limited to extractions, common fillings, cleaning, and treatment of oral diseases. No dental services provided during the second year.
6. All prescribed drugs and sera to a maximum of $20 first year, $40 third year, per family per year. No drugs or sera were provided by the association during the second year. Several families, however, said cooperating physicians had been liberal with drugs from personal stocks at nominal charge.

7. Chronic or incurable cases treated as one case of illness for the entire year. Crutches, belts, eyeglasses, and other appliances not furnished except for patient's welfare while in hospital. Rental treatments (such as radium) to be paid for by patient.

The health association annually contracted with local physicians, dentists, and other service agencies to supply services at flat rates per family per year. Total annual per-family costs (the maximum family fee) represented the sum of these service costs plus an amount for administration.

Druggists did not take part in the program. Physicians supplied drugs as they had done for some time before the program. The druggists opposed this but one local physician said that if he operated his own dispensary he could control the quality of his drugs and their compounding. Wheeler druggists countered with remarks concerning the quality and appearance of the unpackaged drugs dispensed by Wheeler physicians, some druggists asserting that the therapeutic value of drugs was lowered by unattractive packaging.

MEMBERSHIP FEES

Family fees were payable annually in advance. Fees represented a uniform percentage of each family's net income for the preceding year, except that minimum and maximum limits were set. First-year fees were 6 percent of net income for the previous year except that no family paid less than $6 or more than $54. Second-year fees were 7 percent of net income within limits of $14 to $42. Third-year fees, payable December 1944, were 7 percent of net income within limits of $14 to $58. Maximum fees in each case represented average annual costs per family for the total program, including administration. When the 6 (or 7) percent of net income for any family was less than the anticipated average annual family costs, the Federal Government, through the United States Department of Agriculture, supplied the difference. This averaged about $32 per member family the first year, about $12 the second year, and about $20 the third year.

During the first year, one-twelfth of each fund became available monthly for payment. Any monthly deficits or surpluses in each service category were carried over till the year's end and then were applied on unpaid balances. During the first year, physicians from the two medical-service areas were paid one-twelfth the annual service allotment per family each month, times the number of families designating that particular physician as their family doctor.

First-year payment for dental, drug, surgery, specialist, and hospital services was made on a fee-for-service basis. That is, participating service agencies in those categories submitted monthly bills which were paid in full if not in excess of one-twelfth the annual amount budgeted for each type of service. If bills in any fee-for-service category were in excess of this amount, one-twelfth the total annual fund for that particular service was applied to proportional part payment of all bills. Unpaid amounts of individual bills accrued until the end of the program year when they were paid in full or settled on a proportional basis from whatever funds had accumulated from months in which there was a surplus.

Such surpluses were supplemented, if necessary, by allocation of the equalization fund to all service categories that ended the year with unpaid bills. In this way all first-year service charges were paid in

full except hospital bills, which were settled at 77.4 percent of total charges. All second-year charges were paid in full, being on a capitation basis. Services from specialists, to whom members had been referred by participating physicians, were paid on a fee-for-service basis.

POPULATION COVERAGE

Only families who were primarily dependent upon agriculture for a living were eligible to participate in the program at less than maximum fees. Upon payment of maximum fees, requiring no equalization supplement from USDA grant funds, however, any family was accepted as a program member regardless of source of income. After the first year it was ruled that since Wheeler County was solely an agricultural area, all low-income families were considered dependent, directly or indirectly, upon agriculture for their income, and were accepted as members at fees proportional to income.

Upon application for membership, each family designated its family physician (and surgeon), but they were allowed to change their choice to any other cooperating doctor at the end of any calendar month. Applicants for second- and third-year program years were required to show that a cooperating physician had been their family doctor for the 12-month period preceding the opening of program year.

Families from all economic levels became members. Families from upper levels joined in large numbers and furnished leadership and stimulation. These families insisted on a program giving full access to modern health facilities for everybody.

AREA COVERED

Since any eligible family among the patients of a cooperating physician was accepted for membership regardless of residence, there were many members in the territory contiguous to Wheeler County particularly in the Shamrock medical service area. The local decision to base the association area on medical service areas rather than county lines was based on a belief that the growth of the association area to include metropolitan health agencies would be more rapid under this arrangement than if just the county unit were used.

This action involved the assumption that families customarily secure medical attention only from their family physician, or from others upon his recommendation. This assumption, whether true or not true, justified the conclusion that each physician and the residential area of his clientele constituted the natural and logical unit for the administration of health programs.[5]

Local people felt that the capitation principle, wherever it could be applied, provided a dependable income arrangement for cooperating doctors. One individual said:

That way, the doctor got paid just the same amount for each member-client family whether they were sick or well. Naturally, it would be to the doctor's

[5] Such client-physician relationships may have been more typical of rural areas than of metropolitan centers where many contacts are impersonal and where specialization as well as larger numbers of physicians make it likely that individuals would seek health services from different sources. As urban attitudes gradually spread to rural areas it is likely that farm people increasingly want greater freedom in choice of physicians. In fact, Wheeler County people were developing an impersonal attitude toward health service agencies, as indicated by their wish for a more liberal specialist-referral policy in their association. But, when asked whether they thought the capitation principle or the fee-for-service plan, for paying for health agencies, gave more freedom in choice of agencies and personnel, they said that real freedom of choice in health services had never existed anyway except for the rich or a few people near metropolitan centers. Some feared that in the long run medical service areas and capitation payments would perpetuate existing client-physician relationships and reduce the freedom of choice of health service agencies and personnel.

advantage to keep people well; thus the capitation principle should encourage preventive health attentions.

People generally believed that no abuse of the capitation principle had occurred, although possibility for such abuse was recognized. As one person expressed it:

> Under the capitation plan it also might seem to the doctor's advantage to discharge patients a little early or go slow on the expensive medicines and serums if hospitalization and drugs were paid for by a fixed annual fee per family. But that sort of abuse wouldn't happen much in local neighborhoods where everybody knows what happens. It might happen in cities or where health service agencies had grown overly commercial or in cases where they thought they could get away with it.

ORGANIZATIONAL STRUCTURE

From the beginning, local farmers were active in the organization of the association, and the first board of directors, consisting of seven farmers, was elected in February 1942. A short time later a manager was employed by the board. During the period of organization the manager and directors received considerable assistance from the county agent and the FSA county supervisor in acquainting the people of the county with the nature of the new program. Out-of-county representatives of the FSA, the Bureau of Agricultural Economics, and the Extension Service also supplied leadership to the embryonic organization and continued to furnish advice and supervision after the program began operation.

The newspapers of Shamrock and Wheeler cooperated in the membership drive by furnishing publicity to the project. The manager, directors, county agent, and FSA county supervisor held 38 meetings with farmers at night in rural schools to answer questions about the program and to accept applications. The charter of the Wheeler County Rural Health Service was obtained on June 13, 1942, and after contracts with physicians, dentists, and hospitals were signed on June 29, the association was ready to begin operation on July 1, 1942.[6]

The association was incorporated as a benevolent and charitable organization governed by seven unpaid directors to be elected annually by members from their own number. It employed a salaried full-time manager. Federal funds were accepted from the United States Department of Agriculture. The association then had to secure that agency's consent for various actions by the association such as contracting with health service agencies, borrowing funds, employing its manager, submitting its books to Federal audit, and keeping its funds in designated banks.

Functions of directors as stated in the bylaws were—

> (*a*) Selection of, and delegation of authority to, management; (*b*) determination of policies for guidance of management; (*c*) control of expenditures by authorizing budgets; (*d*) keeping members fully informed on the business of the association; (*e*) causing audits to be made at least once each year or oftener, and reports thereof to be made directly to the Board; (*f*) studying the requirements of members and promoting good membership relations; and (*g*) prescribing the forms of contracts between members and the association.

After the withdrawal of the Shamrock physicians at the end of the first year compelled the separation of their clienteles from membership, the board of seven farmer directors was reorganized. The board met monthly with the program manager and maintained constant

[6] Op. cit., p. 17, McIlhany.

interest in the program. Some of its members, however, thought that certain duties devolving on program directors could be performed better by specialists in the fields involved. They said:

> They put too many program responsibilities on directors. The directors' duties include being contractors, salesmen, accountants, business managers, public relations experts, arbitrators, judges—and here in Wheeler County they have attempted to temper a flat formula for fees with adjustments where factors make the applicant's income record unfair to him.
>
> Directors are inclined to believe certain technical matters now devolving on them should be the sole responsibility of Washington or regional levels. Such, for instance, as amounts to be regarded as fair costs for specificed services. They also are likely to believe experts should take a more active part than heretofore in negotiating with local service agents—druggist, dentist, physician, hospital manager—since these service agents are local people like the directors * * *
>
> Directors can provide favorable local public relations for the program; they can be trouble-shooters and shock absorbers for the program; they can know the local situation well enough to seize opportunities for program improvement; they can adapt general program policy to local needs. * * *

Another said:

> Seems that because of figures on costs of drugs and services the experts would be better men to deal with doctors or druggists on things like that, than men like most of our directors. Our directors are good, honest men, hard workers, good farmers, and good neighbors, but they don't claim to know anything about stuff like that. At the produce exchange or in these farm programs, we expect the experts to take care of things like that and our local farmer officials just oversee the business and keep it running right.

The first-year program began July 1942 with 966 member families. Later 15 other families joined the association, bringing the number to 981 for the year. Uncertainty as to whether there would be enough funds to meet surgery charges brought some dissatisfaction among physicians in Shamrock and perhaps caused their separation from the program at the end of the program year. A 2-month extension of first-year services at one-sixth annual fees was provided the families from the Wheeler area, while plans for the second year were being made. During this period, the association had 715 member families, all from the Wheeler medical area—only 48 persons (6.3 percent) less than the first year's membership from that area. Considering the large population losses from the county during 1942–43, this membership seemed to indicate that the program was growing in the Wheeler area.

During the 2-month extension, scores of applications and fees for the second-year program were received by the association. But the second-year program did not begin until 3 months after the end of the extension period. During these 3 months there was some doubt that the program could be continued, and the association had to return many membership fees it had received. Local people said this greatly lowered popular confidence in the program.

When, on December 1, 1943, the second year's program was ready to get under way, fees had been raised to 7 percent of net income (they had been 6 percent the first year); minimum fees had been raised from $6 to $14 (a serious handicap to membership of lowest income families); drug and dental services were discontinued.

The fee-for-service principle was dropped in surgery and hospital services, the capitation principle being applied to all services except specialist referrals furnished during 1943–44. Local people highly approved the creation of a separate fund ($3 per family) for referrals

to specialists and for accidents away from home which required care in nonparticipating hospitals. During 1942–43 this expense had been paid from surgery funds or out of surpluses from other funds. This change, together with guaranteed payments to each service agency of a specified sum for each member family regardless of amount of service, was expected to reduce any hesitancy by the physicians in authorizing specialist care for association members—provided funds were sufficient to permit a liberal referral policy. Several local people expressed dissatisfaction with what they felt had been too strict referral policies during the first year, but most went on to say they thought the policies had improved since separate funds had been provided for referral services.

Three months after the second year's program started in December 1943, 413 Wheeler families had joined. The number later rose to 432, somewhat more than half as many from the Wheeler area as had joined the first year.

Three weeks after the 1943–44 program ended, the association had not completed arrangements for third-year services. Local farm families understood negotiations were under way looking toward reinstatement of drugs and dentistry in the program. Maximum fees were generally known to have been raised, though many people were unaware of the exact amount, and some thought minimum fees were being raised again. Some were not sure whether intermediate fees were being maintained at 7 percent of net income.

One former member said:

> The reason people haven't signed up for the third year program is the procrastination and delay in official readying of the program. It was supposed to be ready in September but nobody came to make arrangements till 2 months later. The program ought to be ready 2 or 3 months in advance of each new year so that people will know what services will be offered. That would make the people feel the program is reliable—something they can depend on.

Local officials said that because of wartime conditions and the busy season, no local meetings were being held to acquaint people with the proposed third-year program. During December 1944, application fees were being received. Medical, surgical, hospital, and drug services were being continued by Wheeler physicians. Dental services were not available to members during this time.

At any rate, 3 months after the start of the third year's operation 366 Wheeler families had joined the association at an average family fee of $37.15. Two-thirds of the 1943–44 members had rejoined; 24 first-year members had rejoined; nearly 50 families (12 percent of the 1944–45 membership) had joined for the first time. Local officials said most of the 1943–44 members who did not rejoin had moved to defense work or had left the farms for other reasons. Drugs and dentistry were "back in the program." The program covered Wheeler's medical service area only.

ATTITUDES TOWARD THE ASSOCIATION

Wheeler County people seemed to be looking mainly for adjustments or reinterpretations of old values which would "bridge the gaps" between what formerly was thought sufficient and what was currently thought right and necessary in various health-care situations.

People seemed to think that similar changes in beliefs were occurring throughout large segments of the Nation. They did not consider

themselves cut off from the rest of the American scene. They thought of themselves as west Texans, as southerners, and as American farmers trying to make a better way of life, particularly as to health care, for themselves, their families, and their neighbors.

Seven-eighths of the 154 sample families studied thought the program a good thing for their community (table 36). The enthusiastic and moderate responses exceeded the fair-to-weak responses enough to indicate a great deal of dynamic support among the people.

Strong favorable responses were more frequent than weak favorable responses with all classes except those who had never been members. Among members, enthusiasm tended to increase slightly with increasing wealth, but the opposite was true of former members. Among former members enthusiasm for the program was somewhat higher with nonfarmers than among farm tenure groups; but little difference in program enthusiasm appeared among various tenure groups of members and nonmembers.

Varying approval occurred not because people were undecided as to whether they wanted a program but because of varying judgments as to how well the program met their needs. Some indifference and lack of information appeared among middle to upper economic levels among nonmembers and among a few former members, mainly operators, at all financial levels.

TABLE 36.—*Percent of sample families who thought the health program was, or was not, a good thing for their community*

	Families		Not a good thing			Indifferent	Undecided	Uninformed	A good thing		
	Number	Percent	Strong	Average	Fair				Fair	Average	Strong
Total	153	100	0	1	0	7	2	5	20	35	30
Members	54	100	0	0	0	2	0	0	13	46	39
Former members	50	100	0	2	0	6	4	0	20	34	34
Nonmembers	49	100	0	0	0	12	2	16	29	25	16
By fee:											
Under $15	30	100	0	3	0	7	3	0	10	50	27
$15 to $24	45	100	0	0	0	7	2	2	20	36	33
$25 to $41	37	100	0	0	0	8	0	11	24	27	30
$42 and up	41	100	0	0	0	5	2	7	24	32	30
By tenure:											
Owners	55	100	0	2	0	14	0	4	13	38	29
Renters	65	100	0	0	0	3	5	8	24	32	28
Others	33	100	0	0	0	0	0	3	24	36	37

Two-thirds of the people believed the program a good thing financially for their family, half held this opinion moderately or enthusiastically. Four-fifths of the members believed the program a good thing for their family. This percentage varied little among the different income levels. However, only two-thirds of the former members and one-third of the nonmembers believed the program a good thing for their family; four-fifths of the members of the lower economic levels and only one-fourth in the upper economic levels held this view.

Intense or strong beliefs were almost wholly on the side of believing the program a good thing for one's family. Most unfavorable attitudes were weak. Nine percent of the weak ones believed, and 3 percent moderately believed, the program not a good thing for their family. One person strongly doubted the value of the program to

his family. One-fourth of the nonmembers, mainly on upper-income levels, took this view mainly because they expected to save money by not joining. Belief rested on the family's own experience and on widespread assumption that any fee above $20 to $30 in most cases would be higher than many could afford or would more than cover their own ordinary services, except for families "who have a lot of sickness." No owner-member thought the program undesirable for his family but proportions among former and nonmember owners were nearly one-fourth and one-half, respectively.

Approval of specific aspects of the program was less strong than approval of the program generally. This indicated that people thought the program was a step in the right direction but that improvements in its features were wanted.

The following proportions of the total sample regarded the proposed third-year services favorably: Physicians, seven-eighths; hospital, three-fourths; drugs and dentistry, two-thirds each. But proportions giving weak approval were greater than proportions giving strong approval for all these services except physicians. The physicians' services were more heartily approved than any other aspect of the program.

Unfavorable attitudes toward physicians were expressed by only 1 person in 30, mainly by upper-income members, renters, and former members. Unfavorable attitudes toward dental services for 1944–45 were expressed mainly by upper-income members. Indifference to various program aspects was greatest among former members and nonmembers on lowest and upper-middle income levels. Strongly favorable attitudes regarding third-year drug and dental arrangements were half as frequent as toward hospital and physician services.

ATTITUDE TOWARD FEES

Most people preferred fees based on income (table 37). Ninety-five percent of members and former members and over three-fourths the nonmembers thought size of family fee should be based wholly on amount of family income. Several specified that provision for fee adjustments was required where reported net income did not accurately reflect a family's circumstances. Income level did not greatly affect preference for fees based on income. The four persons who favored fees based on family size were of upper-middle income, three of them owners. Only one person proposed that all families pay equal fees. All others apparently assumed that equal fees would work unfair hardship on poorer people. Half the people who preferred fees based on income chose this method because it seemed fairest or most reasonable. They expressly interpreted fair play as meaning that payment for health goods and services should be proportional to ability to pay and not proportional to amount of goods and services received. Some people used the word "reasonable" interchangeably with "fair."

Said a top-income member owner:

> That bases it on ability to pay which is the fair thing.

A low-income renter said:

> It's fairer; some can afford to pay more than others.

A top-income renter's wife said:

> I think that's the best way. That's fair. Some don't have the chance that others have. Some don't have the chance our family has.

TABLE 37.—*Percentages of people stating various reasons as basis for their belief that association fees should be entirely based on amount of net income per family*

Reason for believing fees should be based entirely on amount of family income (84 cases)	Total	Present members	Former members	Nonmembers	Present members by size of fee—			
					Under $15	$15 to $24	$25 to $41	$42
"Ability to pay" is the fairest principle	46	44	45	56	63	56	12	43
"Looks reasonable"	5	0	5	13	0	0	0	0
"Helps large families"	28	41	17	25	37	22	63	43
"Helps poor people"	12	6	19	6	0	11	0	14
"As good as any method" or other vague reasons	9	9	14	0	0	11	25	0

A top-income nonoperator said:

That's about the best way they could get at it. Because if a man doesn't make as much as the next one, that makes it easier for him. Of course if a man tried hard enough, I guess he ought to make enough to pay the limit. I farmed last year and the hailstorm got my crop. The hailstorm wasn't my fault, but I should have had more acres in crops so I'd have had more left over after the hail.

Another top-income nonoperator thought fairness was also practicable or expedient since it would be impracticable to charge fees that would not be paid. Said he:

That's the best way because it makes it on the basis of what everyone can pay.

Said a low-income owner:

Basing fees on income looks reasonable. I don't know why except that it gives everybody an equal chance and lets those that are better able to pay, help bear the cost for those who are less able to pay their medical bills.

Fairness and improved opportunity were in the mind of an upper-middle income renter who simply said: "It gives poor families a break."

Said a top-income renter:

That's the best thing you can do. The ones of us who pay the limit help out the others.

Said a lower-middle income renter:

That bases it on ability to pay. Those that don't need much services and are well enough off to pay their own way—it doesn't hurt them—and the program is supposed to be as much for lower-income people as for anybody.

An upper-income owner said:

There are a lot of families who couldn't get to a doctor, especially to dentists, under any arrangement other than the income base.

Wife of a lower-middle income renter said:

If you've got more income you're more able to pay it; and children whose parents don't have much income ought to have health care as much as the wealthy ones.

One-fourth of the people who preferred fees based on income chose this method because it helped share health costs for larger families.

An upper-middle income renter said:

Fees should be based on income only, so large families that are poorer can get medical care.

Another renter said:

Lots of the biggest of families are the poorest of folks.

A low-income renter said:

Usually them that's got the large families don't have much income.

Some suggested a method of adjustment for fees of nonfarm members. People expressed considerable dissatisfaction over what they felt were unfair fees for nonfarmers since no income deductions were provided them to balance unreported value of farm products used at home by farm-operator families. Some thought census value of farm products used at home might be a clue to justifiable income deductions for purposes of computing fees of nonfarmers.

Despite general approval of fees based on income, several persons insisted that local satisfaction in the program would be strengthened if income statements of the members could be dispensed with. These views may have meant that people here were moving toward the belief that health facilities should be available at nominal charge to individuals, the major costs being equalized through social security programs rather than through assistance.

Local association personnel and organizational structure did not stand out clearly in the minds of the people. They emphasized the functioning aspects of the program but did not seem to think it important to know about the structure and personnel. Three-fourths of the sample families knew too little about the program directors to have a definite attitude concerning them; two-thirds were similarly uninformed regarding the program manager.

This did not seem to imply disinterest or lack of confidence in the association. Rather, regard for the association was focused on it as an impersonal service agency whose personnel were merely managers. Attitudes toward the association seemed more often determined by benefits or quality of services than by personal regard for its officials or by their influence as leaders. Management seemed to be regarded as performing secretarial or bookkeeping functions. Policies, most families seemed to think, were made by Government officials. Such an arrangement was preferred locally, for the people here believed that Government was more capable of commanding experts to handle situations that they thought could not be remedied through local action alone.

As farmers were already familiar with cooperative action, they probably did not require frequent face-to-face stimulation. Presumably they believed cooperative efficiency increased by delegation of responsibility to experts and managers.

Even farmer committeemen for local programs seemed to be regarded more as managers than as leaders. One health association member, explaining this viewpoint, said:

> Farmers here identify programs with expert management. They know their local school trustees and their AAA committeemen. In elections of local AAA committeemen 8 or 10 men in each community will elect committeemen. No one else will turn out except in 2 or 3 localities. Yet 85 percent will sign compliance sheets. They're for the program. Probably the reason they don't bother with elections is that they are satisfied with the officials they have, and feel sure the program will be handled competently. They take this attitude toward AAA elections although AAA had a competent educational program here.
>
> In cooperatives it's the same way. A few men take initiative in running them. * * * They know officials operate on the basis of purposes and policies already worked out as well as the experts higher up can furnish, and so long as they are satisfied with these policies and with the way the program is being handled locally, they don't feel there's anything important they could contribute.

No other family so well described this viewpoint, but many seemed to hold this general attitude. This leads to the surmise that people may feel confused when asked to choose among policies or officials when they haven't adequate information for an intelligent decision.

Hence, the ritualistic participation of members in organizations may decline while loyalty to the organization or program may actually increase. They feel toward them much as they do toward certain aspects of farm programs, highway construction, educational practice, etc. They think local responsibility for certain aspects of the program a good thing, but they believe that many points of policy and practice are better devised and negotiated by experts.

REASONS FOR JOINING

People were likely to support the program by joining it, mainly when they believed that fees (1) were a good investment in service or protection for themselves or (2) helped to bring medical care to poorer local families. People who were quite familiar with the program dropped membership or never joined if the services seemed too inadequate or the irritations seemed too evident. People seemed to view the program as a service agency or service arrangement to be used only when anticipated services seemed worth their cost in money, inconvenience, time, etc. They used the program just as matter-of-factly as they used the produce exchange or cooperative cotton gins.

A few paid fees that were greater than they expected the money value of services they would use would be. Except for these few the people here did not regard their program as a "cause" or movement. They did not expect to support it with sacrifice or at unusual inconvenience. Except for a few families, and except for a wish to preserve the program for use in future depressions, there was apparently little feeling that the program should be supported even at personal loss for the good to be gained later or by a greater group. Many, however, were willing to support the program beyond what they expected in immediate personal returns provided they believed in it just as they did in insurance or provided they believed that portions of fees not returned in services to themselves made possible more health care for poorer people.

REASONS FOR NOT JOINING OR NOT REJOINING

General satisfaction with first-year services, except dentistry, was indicated in the following 782 replies received to a questionnaire mailed to members in February 1943 (table 38). The main reason for the relatively large number of unfavorable replies in regard to dentistry was due mainly to inadequate dental personnel and facilities participating in the program.

TABLE 38.—*Opinions of members in regard to the health association, February 1943*

Question	Number of replies	
	Yes	No
Do you want the Wheeler County Rural Health Service to operate for another year?	781	1
Do you think you will join another year?	781	1
Do you like the way the following operates:		
General practice?	781	1
Surgery?	782	0
Hospitalization?	779	3
Dentistry?	678	104
Drugs?	760	22

Source: Mailed questionnaire.

In the present study, nearly half the former members in the sample said they were not members because it was cheaper to stay out. An additional one-fifth said they could not afford the cost, and 10 percent more gave reasons relating in other ways to fees. Thus, three-fourths of the former members still in Wheeler County gave program costs as the reason for not continuing their membership. When people were asked what reasons for not joining they most often heard from neighbors, half the replies referred to the costs. When former members were asked their greatest criticism, nearly one-third said, "fees are too high," or "we don't need the doctor much and wouldn't use that much service." The latter answer almost certainly referred also to loss of drug and dental service from the second year's program.

Criticisms by second-year members were only slightly concerned with fees (about 10 percent) and mainly (two-thirds or more) were concerned with suggestions for improved quality of services or need for additional services.

TABLE 39.—*Percentage of clients of Wheeler physicians who dropped their membership in the health association after the first year*

Tenure of client	Amount of fee								Total
	$6	$7–$14	$15–$20	$21–$24	$25–$29	$30–$41	$42–$51	$52–$54	
Owners	41.2	40.5	50.0	39.4	63.6	50.0	71.4	37.5	45.3
Renters	66.7	41.1	77.4	52.5	58.8	50.0	83.3	47.4	53.8
Nonoperators	84.6	65.9	71.1	52.4	57.1	66.7	100.0	33.3	67.3
Total	67.1	52.9	69.6	47.8	60.0	53.2	78.6	54.9	56.1
Number members, 1942–43	70	235	125	94	70	79	14	71	763

Membership discontinuance was fairly evenly distributed among fee groups (table 38). More than two-thirds of the nonfarm members dropped membership after the first year compared to less than half of the farm owners. Other reasons for drop in membership may be reflected in a statement of a local person as follows:

Higher officials may lack understanding of farm people and of little things that cause discontent and that finally result in the farmer's saying he's just not going any further. Officials may think farm people are logical in their attitudes toward various programs and that when a thing is logically good they'll take it and go along with it. But people don't always work that way. Little irritations—the red tape, the delays and misunderstandings, the program alterations, the things that don't work out in individual cases as they do on paper, extra charges members had expected to be covered by their fees, having to bother with small expenses each time the doctor says to get some medicine—these can become the major factors in people's decisions and attitudes toward programs that are otherwise logically sound and good and profitable, and admitted to be so by the people.

Incomplete drug coverage the first year discouraged some. There was misunderstanding as to how much drugs the association would supply the first year. Some believed all needed drugs would be provided free and were dissatisfied when they learned differently. One former member said:

I joined the first year. I've worked on some of the county committees, so naturally I leaned to agricultural programs. I had a lot of sickness the first year. My wife died. When the first year wound up, two men came around and asked how I liked the program and I said I was satisfied. But I was in error, as I shortly learned. The manager sent out a notice saying I had run over my $20 allowance on medicine. I had never received a notice that our original arrangement for

all of our medicine had been changed. Maybe I let it upset me too much, or make me prejudiced. Anyway, I've stayed out since on that account.

Discouragement was prevalent when dentistry and prescribed drugs were discontinued for the second year's program. There had been dissatisfaction because so few dentists cooperated during the first year, but the idea of providing dental services was itself a popular feature.

Perhaps dropping drug and dental services brought more discontinuance than later reinstatement of these services could have remedied. Interruption and delays in service and unsettled conditions no doubt lowered confidence in the stability of the program. As one person said:

> We got to where we didn't know whether they meant to have a program or whether we could depend on it if we joined. And there wasn't much we could do about it. It was all in the hands of the Government to decide.

Fees were increased from 6 to 7 percent of net income, a step believed by some to be merely the first in a series of increases. Dislike of making income statements probably hindered membership in some cases. Unfamiliarity with modern health service programs sometimes explained some indifference to the program.

Departure of many families for war work or the armed forces accounted for decline in membership. In the Wheeler medical service area, population declined almost 15 percent between the inauguration of the health program and the beginning of second program year. The county's scholastic population decreased 29 percent between enumerations of 1940 and 1944; a 7-percent decline occurred in the 12 months before the enumeration of July 1944. Heavy out-migration was also indicated by the large number of former members (40 percent in the sample) who had left the county by late 1944. Out-migration of former members had been heavier among renters and nonfarmers than among farm owners, and somewhat heavier among families paying less than average first-year fees than among families who paid more.

UNDERSTANDING OR KNOWLEDGE OF PROGRAM

People who best understood the purposes were most likely to be members. Proportions of people having reasonably clear understanding of the purposes were half of members, one-fourth of the former members, and one-seventh of the nonmembers.

Fifty percent of the members, 34 percent of the former members, and 6 percent of the nonmembers knew the association had a board of directors; 40 percent of these groups could name the association manager, percentages for various classes being: Members, 57; former members, 33; nonmembers, 18. About 75 percent of both the top and bottom income members knew these facts.

People didn't seem to care who the officers were so long as the association gave adequate health service at a price within their reach. Nor did they care much about policies which they generally believed were made by Government officials. They were satisfied with this arrangement as they thought the Government could do it better than local individuals in certain aspects of the program.

Farm ownership together with upper incomes, rather than amount of income only, seemed to determine who took most interest in extending the program. Except for upper-income owners, who were about twice

as likely as other groups to say they had asked others to join the association, the income level seemed to have small effect on the percentage of people who ask others to join, or on effectiveness of such requests.

Fifty-seven percent of all persons said they were uncertain who supplemented individual family fees.[7] Most people knew that family fees were based on "what a family makes," though some assumed that fees were adjusted for family size, a method used in the prepayment plan used by Wheeler physicians before the inauguration of the health associations.

Physicians were most often named as effective sources of program information in the Wheeler area, especially among lower-income people. Proportions naming physicians as main source of information were twice as high with lower-income people as in upper-income groups. This may have resulted from special physician interest in getting the program to lower economic families, or from lack of other agency influence on these families, or both. Physicians said they could afford to give program services at contracted rates only if the program included high proportions of lower-income families who might otherwise be "charity" or part-payment patients.

Neighbors were the most important source of information regarding the program to one-eighth the people, the neighbor often being a program director. A similar number had received most of their information by letter from physicians or program officials. Mentioned with almost equal frequency were: Extension Service worker, mainly by owners who had dropped out of the program; FSA worker, mentioned most often by renters; and community meetings, most often mentioned by middle-income members and former members. Apparently people closely identified the leadership with the Wheeler doctors. Although most knew there was some separate organization, neither it nor its personnel stood out clearly in many people's minds.

[7] Some who paid maximum fees believed part of their fee was used to supplement the fees of lower-income families, which was not true.

CHAPTER XI. CHANGING ATTITUDES TOWARD HEALTH PROBLEMS

Demand of Wheeler County people for better individual health services had grown out of their experience in the relatively new West. As self-reliant frontier families they had taken part in the blending of cultures from agricultural areas of Europe and from American communities east of the one hundredth meridian, both North and South. New conditions involving many agricultural crises had necessitated adjustments in their previous thinking and ways of life.

Wheeler County lies at the juncture of the rolling plains with the high plains in the Panhandle, Texas' last frontier. It was opened to homesteaders in the first decade of the twentieth century. The settlers were mainly Anglo-Saxon farmers from Eastern States. But conditions in the new country were unfavorable to the farm economy they had brought from humid regions where farm life revolved around concepts, practices, and expectations that were based on annual cycles of fairly stable yields, on production of such familiar crops as corn and related enterprises, and on short-term credit. They had known little if any agricultural planning except on individual farm units. Theirs had been the ideal of complete and continuous self-support on a gradually rising plane of living.

Resultant crises made the farmers willing to try new approaches in farm situations, and had stimulated interest in credit, price, and market structures, and in achieving greater individual security through organization and cooperative enterprises.

Plains agriculture did not require large numbers of resident low-paid laborers. There were more than four farm operators to every farm laborer in Wheeler County in 1940. Operators and their families did most of the farm work. Few farm families, if any, hired domestic help. Only 2.5 percent of the total labor force in 1940 was nonwhite. The situation encouraged emphasis on efficiency, mechanization, impersonal cooperative structures.

At the time of the study first settlers could drive to town in cars, stop by the cooperative creamery, trade farm products for feed and seed at their cooperative exchange, stop with their wives at the mechanized laundry and rent equipment which would complete the family wash in a few minutes, visit the hospital for a health check-up, receive drugs or medical treatment through the Rural Health Services Association, attend the weekly livestock auction in a sales barn equipped with grandstand seats, electrical sound devices, and heat on cold days, then stop by the cold-storage individual locker plant for needed provisions, and finally reach home in time for a favorite radio program heard on windmill-powered receiving sets.

Local living levels were above average for the United States, and there was a keen awareness and understanding of national structures and processes affecting agriculture and rural people. The situation

therefore favored the approach to local problems through consideration of their relation to the national situation and Government agencies that could be of help.

The farmers of the county had passed through stages of unfenced cattle country, corn economy, cotton growing, conservation agriculture, emphasizing kafir-sorghum forage crops along with improved cattle breeds and greater attention to native and seeded pasture. They had reached a stage of emphasis on mechanization, larger farm units, organization of enterprises that were dependent, in some measure, upon national as well as individual planning. The people generally thought in terms of high standards of health and welfare for all the people. Their own land-use planning report had noted the problems of health-service costs and distribution and had suggested that some action should be taken. Particularly significant were the people's viewpoints on Federal functions relating to rural health. Said the wife of one member:

> We farm, and help produce the stuff the Nation needs. So, if we don't make enough to buy the health attention we need, or to keep the doctors' incomes high enough so they can have all the equipment and give all the service they ought, and if the Government steps in and helps to bear or equalize the cost, I don't feel that they're giving us something for nothing. I can join the association and take the assistance the Government gives and still feel we don't owe the Government anything and that they don't owe us anything. That's only doing right by people.

Experience of agricultural insecurity in the Plains was reflected by one member's statement as follows:

> There's bad years and poor people, and it seems the Government should help people who can't do what they need in things like health. Besides, there are some things people can't handle by themselves or locally—such as when the Government takes a hand in sanitation, in infantile paralysis, etc.

Others said that social welfare was endangered by high-priced health services. Said a member:

> Doctor bills in private practice are too high; so the Government should stay in our health program to reduce cost. Then private drug stores make 50 to 75 percent. That's too much profit for any kind of business.

Said a former member, a prosperous farmer who had been unable to continue membership in the health association when his local family physician withdrew from the program:

> Government should stay in this health program permanently and extend it to a wider area. Some people don't like to have anything to do with an organization if the Government's in it, but with me it's the other way. That is, if the Government's backing a program, that's a guaranty you won't get swindled.

Thus, to many people, Government seemed a natural structure through which people might carry out essential functions such as health care. Governmental participation in health programs they thought should include (1) financial aid or equalization for individuals and areas unable to support an adequate level of health care, and (2) the necessary integration and supervision required for such a national health program.

The kind of social relationships which Wheeler County people referred to as "Texas democracy" seemed to have facilitated impersonal businesslike cooperation, reliance on expert officials, and the widespread attitude that neighbors deserved a better way of life than they were getting, especially better access to what local people

called "modern, scientific, up-to-date health services." Said one farmer, an official in various activities:

> The masses aren't getting what they deserve in this modern day and age. The masses are all-right people. Lincoln came from the masses. When a man's down in the mud, you can't stomp on him too much or you ruin him. A lot of good men have been lost, to the impoverishment of humanity, that way. As good people as there are living are down there among the folks who need help; and they have as much right to the American way of life as anybody. The Government should continue and expand financial assistance or equalization in this health program, until all men of low income are reached with a full health program. The people have raised no complaint about the Government chipping in.

Three-fourths of the farm people approved permanent Federal aid to health associations; only 3 percent opposed such aid (table 40). One person out of five was indifferent or undecided. People who had never joined the health association were only about two-thirds as likely to approve Federal aid as members and former members were.

TABLE 40.—*Percent of sample families expressing various attitudes regarding permanent Federal participation in rural health programs*

Attitude toward permanent Federal participation in health programs	All sample families		Present members	Former members	Nonmembers	All classes, by fee				By tenure		
	Number	Percent				Under $15	$15 to $24	$25 to $41	$42 and up	Owners	Renters	Others
Total approving permanent Federal participation	118	77	*Percent* 85	*Percent* 86	*Percent* 59	*Percent* 90	*Percent* 76	*Percent* 65	*Percent* 80	*Percent* 79	*Percent* 75	*Percent* 81
Percent believing Federal participation a moral obligation of Government	77	50	54	62	35	50	51	43	56	54	47	53
Percent approving permanent participation without holding such participation to be a duty	41	27	31	24	24	40	25	22	24	25	28	28
Approve temporary aid	5	3	4	2	4	7	4	3	0	0	5	6
Undecided	4	3	5	0	2	0	2	5	2	0	6	0
Uninformed or indifferent	21	14	6	6	33	0	18	19	15	17	11	13
Oppose permanent aid	5	3	0	6	2	3	0	8	3	4	3	0
Total	153	100	100	100	100	100	100	100	100	100	100	100

Approval was as strong and as frequent among owners as among renters, laborers and old-age pensioners. Farmers often said that permanent Federal aid to health should be made available to townspeople as well as farmers.

They believed, in the first place, that everyone ought to work hard, live wisely, and be self-supporting insofar as possible. Everybody wanted to be self-supporting in all things. Repeated experience and observation, however, had convinced most people that any security, especially in health care, was out of the question for most people on account of what they called "fancy prices" charged for many health services and, more basically, because they felt the average man's income would not support expenses incident to "big amounts of sickness" in the family even at "fair prices" for health services. Sickness, they said, too often involved the necessity of accepting "charity" or

reductions in health service charges, heavy debt, or sacrifice of important items in personal, family, or group welfare.

Although any family would mortgage its possessions to secure the medical attention critically needed by a family member, people resisted the necessity of such debt. Keeping out of debt was given a high value, especially among middle-income people. They said that debts for health care did not "pay out" the way land or farm equipment paid for itself. They thought that heavy medical debts or the constant danger of such debt discouraged people in their efforts to be self-supporting, and were serious threats to self-respecting status and security.

Said a middle-income renter, age 39:

> Having hospital and doctor debts like that don't give a man a fair chance to be self-supporting, or to get any satisfaction out of trying to keep paid up with the world. You can't have much courage, morale, or self-respect if you have a big debt hanging over you, that you'll never maybe be able to pay out.

Thus these people felt that financial protection against health hazards was needed and deserved by everyone. As many often said, in effect:

> What a man makes or doesn't make in a year or in a lifetime of struggle is determined by so many factors over which he has no control and for which he cannot be blamed or held responsible. For example things like unequal competitive advantages, unequal opportunity, and unequal starting points in life. People and localities don't have the same chance to make lots of money. Even if they did, everybody still deserves the best there is when it comes to health care especially for their children who can't help whether their parents have worked and lived like we think they ought to. People should be assured best health care because they're human beings and because society is civilized, and because hard work, thrift, good judgment, no longer guarantee a man a decent living, especially decent health care.

One member, a middle-income renter, was one of the few who held reservations as to whether everyone deserved health aid:

> I've been taught to pay my own expenses. But each child ought to have an equal show, like in education. Now, the older ones who won't work don't deserve assistance but I don't know how you could always tell who is deserving and who isn't. Then you might make mistakes sometimes and not do right by somebody who actually was a worthy person. To prevent one case happening like that you could afford to help out a lot of people who don't deserve help. Besides, there are things like medicines, operations, and other kinds of health care that you've just got to see that people are allowed to get whether we think they actually deserve them or not.

The idea that people often are not to blame for lack of adequate self-support was expressed by one upper-income renter, as follows:

> People ought to be self-supporting but some can't; and in such cases, Government should always fill the gap. For 10 years here farmers were in a hard shape. So a lot of us around here haven't been self-supporting at times, but the individual farmers were not to blame for that.

Farmers who themselves had been highly successful often asserted that people of average means generally could not afford the kind of health care they ought to have nor the health hazards they must assume.

Said an upper-income renter:

> The Government must assist in health programs so long as the people don't make more money than they do now.

And the wife of an upper-income renter:

Assistance should be continued permanently because so many people won't ever have enough money to feel they can go to the doctor for everything they ought to.

People resented having to behave as though certain expensive health facilities and services were luxury items with "fancy prices" in the American way of life, available only to the rich, or purchasable by average families only by going into debt and at the sacrifice of other important things. They did not believe that average family incomes would guarantee a desirable level and quality of health service even at fair prices. Those whose beliefs along these lines had changed in recent years said they had come to consider health of such imperative importance and so much a part of everyday life that they believed health needs, like education or like highways, were outside the realm of things that, with safety or justice, could be left to individual effort or success, or on which individual families should be strictly self-supporting. Said the wife of a middle-income farmer:

Health must come ahead of everything, and education next. People can't do anything even toward education if they don't have health. I think Federal assistance to health programs and the programs themselves ought to be Nation-wide because it is such a financial aid to so many people who try to pay their bills but who, even if they aren't exactly poor, put off so many things they ought to have attended to for the health of themselves and their children. I think it's for the national welfare that the health of the people should be taken care of. Health makes for the upbuilding of the Nation, or plays a good part of it.

Said an upper-income renter:

People couldn't run and pay for their schools by themselves. So it may be about like that with organizations for maintaining health among rural people. Then the Government has to stay in to keep a program running right.

The creed of self-support with regard to health expenses, many believed, could no longer apply because cash costs of health care had risen disproportionately to incomes, or because importance attached to health care had grown, or because society no longer could afford to risk health care to individuals any more than highways or education safely could be left to individuals. All readily recognized the menace of ill health in wartime and some said health was necessary to personal satisfaction, to citizen morale, and to national welfare at all times.

People wishing to regard themselves as self-supporting in respect to medical and dental services often interpreted Federal aid or equalization in the health program as:

1. Assistance to doctors, not themselves.
2. As a lump sum contributed to the program, not to individuals.
3. As a part of an "insurance" program, not assistance.
4. As "protection" against emergencies.
5. As carrying out, without "charity" implications and with greater justice, the customary practice by service agencies of gaging charges somewhat proportionally to patient income. Many believed doctors—particularly distant specialists whose services were being increasingly demanded by farm people—often could not know a client's financial situation well enough to gage fees accurately according to what the client was able to pay or, as some said, "To what the traffic would bear."

People who already had found themselves sometimes unable to make a decent living seemed to think Federal assistance through a general program open to all was preferable to "assistance" only for the poor. They implied that taking part in such an impersonal program left them whatever personal dignity they had salvaged and did not continue to remind them of their inadequacy, nor make it necessary to apologize for being poor, as in the case of "charity" from the Government, their neighbors, or their doctor.

Indecision as to whether the Government should participate in health programs was sometimes modified by partial approval, or by approval of assistance for certain people. Conflicting values were obvious to a certain middle-income renter, who replied as follows to the question, "Should Federal participation in health programs be continued permanently?"

> Well, "yes" and "no." The Government's got more on its hands than it can do. Yet I know that people couldn't get health care they need if Government didn't help. The program's the finest thing in the world for people who don't make much money. It protects their children.

Any indecision which existed was based on such reasons as the absence of health worries—not thinking health needs are urgent—belief that adequate health service to children though desirable was not a compelling moral duty of Government nor a basic "right" of every human being. A frequent conflict was evident between central values, such as duty of self-support or of requiring tests of "deservingness" on the one hand, and a feeling that there is a great need for some minimum standard of health care for everyone on the other.

Most of the five persons who opposed permanent Federal health aid thought of the program as "relief" intended mainly for poorer people—not as equalization of an essential service. Three of the opponents were from middle-income levels; about one-fourth of their membership fees would have been paid through Federal equalization. One opponent was a former member, a farm owner whose first-year program fee was less than $15.

Thus, consideration of permanent Federal equalization in health service costs touched many central opinions that the people had always held. Some people had moved farther than others from the older viewpoints. Opinions on specific issues, or as to the whole question of Federal participation in health programs, reached from extreme opposition through indifference or indecision to extreme approval.

People increasingly had come to believe:

(1) That poor health levels were only in a minor way due to providence; rather they emphasized belief that much ill health came from inaccessibility of families to complete modern medical facilities, including specialists and services hitherto available only to the wealthy. That while most people want to be self-supporting, adequate self-support in health care has been impossible for many individuals, families, and localities for a long time.

(2) That it was unwise from the standpoint of the general welfare to condone the obvious lack of health services. Many insisted it was society's compelling duty to make the best health personnel and facilities accessible to all.

(3) That health security is necessary to preserve individual initiative and morale since many persons and localities are not self-supporting through no fault of their own. That access to full use of

modern health services would give people courage for additional effort toward self-support and toward achieving the American ideals of living.

(4) That cooperation between citizens in organizations to improve health care, or to equalize health service costs, is a legitimate and proper governmental function and that Government participation is a guaranty of continuity, honesty, and fair play.

(5) That better access to full health services is desperately needed by many nonfarm people.

These people seemed to think that similar developments of health care ideas were occurring throughout large segments of the Nation. They thought of themselves first as west Texans, and as southerners; but more important as American farmers who were trying to bring a healthier way of life for themselves, their families, and their neighbors.

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CHAPTER XII. APPRAISAL OF PROGRAM

EFFECT OF THE PROGRAM ON HEALTH HABITS

Amount of services received by members after joining increased somewhat, but quality of services remained about the same. Most people believed the program had caused important changes in health habits (table 41).

TABLE 41.—*Extent to which people in Wheeler County, Tex., believed the health program had caused changes in health habits, by membership status, by amount of fee and by tenure, 1943–44*

Reply to question: Are people changing their health habits as a result of the program?	Total	Membership status			By amount of fee				By tenure		
		Present	Former	Nonmember	Under $15	$15 to $24	$25 to $41	$42 and up	Owners	Renters	Others
Yes	64.0	88.7	56.5	37.8	60.7	77.0	51.4	64.7	69.6	67.3	50.0
No	8.1	3.8	10.9	20.9	7.1	10.2	2.9	11.8	4.3	8.6	12.5
Uncertain	27.9	7.5	32.6	41.3	32.2	12.8	45.7	23.5	26.1	24.1	37.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of families reporting	136	53	46	37	28	39	35	34	54	58	32

One-third of the references to improvements concerned prevention (table 42). This proportion varied little among members, former members, nonmembers, or by income and tenure groups. Improvements named most often were: (1) Earlier consultation with physicians, (2) more attention to minor ailments, (3) vaccinations, (4) use of cold sera, (5) increased attention to children's health with long-range preventive benefits. Half these references related to increased attention to minor ailments or to earlier consultation with doctors. These results were mentioned three times as frequently by the two upper-income groups as by poorer people. This indicates a readiness of upper-middle and higher-income groups to assume that poorer members took full advantage of the opportunity for health attention. Actually, upper-middle and top income families used the program services as much during the second year as lower-income families did.

One-third thought the program had resulted in greater use of medical science through more frequent visits to physicians, and through less dependence on home remedies. One-fourth of those mentioning this change (8 percent) thought some abused the services by too frequent calls at doctors' offices. Most persons who made this criticism had apparently not considered whether such practice might diminish after people who had never had the money to call on doctors for all needs had compensated somewhat for lack of past attention. One-seventh of all references made concerned dental care, tonsillectomies, and major operations which had been postponed because of the expense. Neither had it occurred to most people that low income and general insecurity might be associated with lack of robust health, with

functional and dietary ailments, and need for medical rehabilitation. Once these considerations were mentioned, about half of those mentioning abuses seemed to believe they would gradually disappear. Actually most people approved increased frequency of visits to doctors' offices.

Many thought early years of any rural health program would require above average service merely in "catching up" with postponed treatments. Members mentioned postponement of treatment twice as frequently and former members one and one-half times as frequently as nonmembers did. The program resulted in wider use of hospital services by rural people. One-tenth of the references to changed practices mainly made by owner members, related to increased hospital care, especially at childbirth and for pneumonia or other illness formerly cared for at home. Some said the program had been educational and had made people more health-conscious. Over half the members said they felt more free to use health services after they joined the association.

TABLE 42.—*Percentage distribution of the 87 sample families in Wheeler County, Tex., who thought specified changes had occurred in health behavior resulting from the health program*

Change	Total	Present members	Former members	Nonmembers	All classes by fee				By tenure		
					Under $15	$15 to $24	$25 to $41	$42 and up	Owners	Renters	Others
Increased prevention	32.1	33.8	31.8	28.0	32.1	36.2	25.9	31.7	27.8	35.8	31.8
See doctor oftener	27.3	17.6	29.5	52.0	25.0	21.3	33.3	31.7	27.8	23.9	36.4
Less delayed treatment	14.0	16.2	13.6	8.0	17.9	10.6	11.1	17.1	11.1	17.9	9.1
More hospital care	11.2	18.9	4.6	0	10.7	8.5	18.6	9.8	16.6	7.5	9.1
Poor get more care	3.5	2.7	6.8	0	3.6	6.4	0	2.4	5.5	1.5	4.6
Educational changes	9.1	8.1	9.1	12.0	7.1	14.9	7.4	4.9	7.5	11.9	4.5
Less illness	2.8	2.7	4.6	0	3.6	2.1	3.7	2.4	3.7	1.5	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Program morale was relatively high among most people. Only one person out of eight believed opinion was less favorable to the rural health services than a year or two before (table 43). A similar number were undecided. The remaining three-fourths said interest in the program either was increasing or had remained about the same.

TABLE 43.—*Percentage distribution of replies to the question: "Is local opinion growing more favorable or less favorable to the rural health services program"*

	Total	Members	Former members	Nonmembers	Total by amount of fee				Owners	Renters	Nonoperators
					Under $15	$15 to $24	$25 to $41	$42 and up			
More favorable	36.1	44.2	32.6	28.6	39.3	35.9	28.6	41.9	28.9	36.4	41.9
Less favorable	12.0	3.9	21.7	11.4	17.9	10.3	11.4	9.7	13.3	12.7	9.7
No change	39.9	46.1	28.3	45.7	35.7	33.3	42.9	48.4	44.5	38.2	38.7
Uncertain	12.0	5.8	17.4	14.3	7.1	20.5	17.1	0	13.3	12.7	9.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases reporting	133	52	46	35	28	39	35	31	45	55	31

AREA COVERED

Basing the program area on local medical-service areas regardless of county boundaries resulted in building the program around local doctors and perhaps overemphasized their position in it. The medical-service area, however, seemed to local people the best adapted unit. Failure to retain the Shamrock medical area, or to expand to neighboring medical-service areas through an accession of new physicians might have been due to the practice of obtaining unanimous participation by physicians in each medical center before accepting participation by any practitioner there. Had it been possible for any individual doctor to participate on a fee-for-service basis, several physicians out of the county might have cooperated.

SUPPLY OF PHYSICIANS

The program did not greatly affect the decision of physicians to enter or stay out of the county. Actually, people were not worried over partial loss of doctors from local areas if they were assured of available medical services or of transportation to such services at larger towns within a radius of 100 miles or so. One hundred miles by car was closer, so they said, than 5 or 10 miles 40 years before. Good hospital facilities were regarded as greatly preferable to usual sickroom facilities in homes. Already families were accustomed to hospitalizing most confining illnesses including all maternity cases. This practice saved the time of physicians.

PREVENTIVE WORK

Most people thought health practices had been improved by the health program. However, only one-twentieth of visits to or by physicians (or of diagnoses) among sample families were preventive services. Vaccinations for colds and other diseases were becoming frequent. No arrangements had yet been made for introducing into the county such public health services as nursing, vaccinations, and clinics, though the matter was being considered by the county commissioners. Most people hoped everybody could have frequent health check-ups, fully utilizing diagnostic science.

LOCAL RESPONSIBILITY

Local farm people often believed too much responsibility had been placed on the local health association. They thought local leaders in the health program had an important responsibility for interpreting the program to local people and for informing them about it, as well as for adapting the program to local conditions. They apparently thought the local people should have some general supervision of its operation. But they insisted that business administration and technical matters, such as determining services and negotiating agreements, should be left to technicians in the specific fields.

PAYING FOR CARE

Wheeler physicians were favorably disposed toward remuneration on the basis of a fixed annual sum per family for stated services.

They felt, however, that low-income families must comprise a sufficiently large proportion of membership, with the Government guaranteeing a fixed sum for each family. These fixed sums per family had been determined to be fair and equitable only if all farm families or fair proportions of families from all economic levels were included. Should members represent mainly middle- to upper-income families the result would be lower average collections from these people in a doctor's clientele, with no compensating income from charity cases among whom collections were poor.

The two Wheeler physician-surgeons who operated as partners offered members all general practitioner and surgery service (except referrals to specialists) for $2 per month per family. The two doctors furnished hospitalization for an additional $1 per family per month. They supplied all prescribed drugs and serums for less than $1 per month during the third year. The Wheeler dentist had offered stated services on a salary basis regardless of the number of program members. Prepayment on the capitation principle at fixed annual fees per family emphasized group payment.

QUALITY OF CARE

The association lacked contractual relationships with metropolitan health centers, and as a result the association did not greatly change the quality of services provided to members. Members insisted that quality of service did not deteriorate after they had joined the association; they generally said the service was about the same. It was apparent that expressions of dissatisfaction did not adequately reflect the people's keen disappointment in the failure of the association to provide additional facilities and modern health aids.

Most people believed quality of health services would improve generally after the war ended. Leading farmers believed that wider scope and higher quality of services would follow eventual growth of the program to include contracts with institutions in metropolitan centers. Some of them thought that perhaps this would come through a national organization of outstanding health centers.

ADEQUACY OF SERVICES

All except three member families in the sample reported use of health services outside the association during 1943–44. Fifty-four sample families spent $3,245.50 during 1944 for necessary health services outside the association compared with membership fees of $1,528.64. Eight families paying fees of $14 each spent an average of $73 in addition outside the association, mainly for dentures, eyeglasses, and drugs. The average fee for sample families was $28.31 but each sample family spent $60.10 on the average for health services outside the association.

Dental service, the largest single item of expenditure outside the association, averaged $20 per family, or $34 each for the 60 percent of all sample families reporting dental work. Half the sample families reported expenditures of $29 each for eye service, an average of $15 for all families in the sample. Drugs as reported averaged $13 per family; probably numerous purchases were not remembered. Extra charges for private hospital rooms or for use of hospitals outside the

association were reported by 14 percent of sample families; this service had cost these families $33 each. One-fourth the sample members had sought service from specialists or other physicians outside the association, without referrals, at an average cost of $30 each.

Although the item was not requested, several families mentioned use of osteopathic and of chiropractor services, with an average expenditure of about $20 each for these families. People in this region, perhaps more than in eastern areas, often regarded osteopathic and chiropractic services as important health services.

All three directors interviewed had suggested to regional and national officials that drugs and dentistry be reinstated in the program, and all were interested in basing the program area on medical service area, rather than county boundaries. They wished to see health program areas coincide with metropolitan medical service areas since they believed this would make specialists more accessible.

FREEDOM

It would seem that capitation plans were perhaps less satisfactory where physicians practice separately than where several physicians, including specialists, were associated in a partnership, thus giving patients choice of any physician in the group.

The fee-for-service basis of paying general practitioners would have offered greater freedom to members in selecting medical personnel or in seeking specialist attention than the capitation plan allowed. Capitation arrangements required (1) that all practitioner services must be obtained from the physician selected by the family at the beginning of the program year; (2) that specialist services could not be paid for without written authorization (referral) from this family physician. Families were free to change physicians at the end of each month but this arrangement did not permit change of physician during any emergency that might arise during the month.

Some believed that restrictions on access to specialists and nonlocal physicians curtailed competition between urban and rural physicians without guaranteeing that rural medical standards would be raised. Some believed that vesting authority for referral policy in the hands of family physicians had a psychological disadvantage in that people would feel there was no satisfactory recourse should any family physician refuse to authorize specialist services. They believed appeals would be time-consuming and would result only in great dissatisfaction and loss of support of the health program should unsatisfactory services occur during negotiation of an appeal.

People realized that referral policy was a knotty problem, but many believed that program extension to include metropolitan health services would give members a degree of service comparable to that enjoyed by any local well-to-do family. It was also felt that arrangements should permit members to have services from national specialists since they assumed every family wanted to give its members the best health services possible. Inclusion of all these specialist services would add to the costs, but many people did not believe such costs would be prohibitive if given a wide basis of support. Nothing less, they felt, would offer people full health security.

An indication of how far short the program fell of giving people health security was the lack of assured coverage for health services

required by members when away from home, though such expenses were paid by the association so far as funds permitted.

UNITY

Divisions among physicians and druggists and their varying attitudes toward the program were not new and could not be charged against the program. Exclusion of nonfarm families from membership was a divisive factor where none was felt before. People believed that the only satisfactory health service plan was one which adequately served everybody. They did not believe in different standards of medical service for different income groups.

TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION, 1942–43

A Salaried Staff Plan

CHAPTER XIII. INTRODUCTION

Before October 1942, Taos County was meeting its health needs in much the same way as is most of rural America. After that date, however, approximately one-third of the county's families were organized cooperatively to obtain for themselves more adequate medical care at a price they could afford to pay.

The people of Taos are representative of the rather large segment of our population which is often referred to as Spanish-American. Taos is one of the oldest settlements in New Mexico, and, therefore, one of the oldest in the United States. Spanish settlers came to Taos as early as 1615. Taos is geographically isolated by the Sangre de Cristo range of mountains and the gorge of the Rio Grande. Community life is dominated by the village type of settlement, based upon a subsistence agriculture carried on in the irrigable valleys.

Health conditions among the Taosenos are among the worst in the country and are related to the generally low economic status of the people. As a result of the war, the five physicians who were practicing early in 1942 had fallen to three in 1943, and standards of medical care were deteriorating at the time the association began to function.

Local interest in health needs led to the formation of the Taos County Cooperative Health Association, which began operation on October 1, 1942. Membership during the first year of operation numbered 1,145 families, or 5,935 individuals. Services rendered during the first year cost a total of $44,500, or $38.03 per family. In addition, the association had a capital investment of $29,494. A grant of $60,555, or 81.4 percent of the total expenses of the first year's operation, was made to the association by the Farm Security Administration. Local contributions of cash and property accounted for the remaining 18.6 percent, or $13,793. The average assessment fee for the first year amounted to $4.07 per family; the minimum fee was $1 and maximum, $32.

Three community health centers—Penasco, Questa, Taos—are located strategically in the county. These centers are focal points for medical care and health education. They are staffed by a full-time registered nurse, physicians, and dentist on rotating schedules. Hospital care is available to members at Taos, Taos Pueblo, and Embudo. Drugs are supplied through prescription to private drug stores or by the association dispensary. Outside specialists are contracted for and paid out of association funds. Ambulance service to and from the health centers and hospitals is available to members.

CHAPTER XIV. MEDICAL CARE BEFORE ORGANIZATION OF HEALTH ASSOCIATION

Before joining the association, almost three-fourths of the families (72 percent) reported that they called a doctor during sickness of a family member. The remaining 28 percent of the families either went without medical aid or relied upon a medicine man.

Health practices are often guided by medieval traditions and superstitions.[1] Investigations, made locally, indicate that 62 percent of the deaths during 1941 were not attended by physicians, nor were death certificates issued. From 1937 to 1939, 64 percent of the reported deaths were shown to be from unknown causes. Of 1,629 births during the same period, 401 were delivered by physicians, 1,122 by midwives, and 103 by other persons. The infant mortality rate, 107 per thousand live births, was the highest in the United States.

A marked difference in the pattern of medical care between the three health service areas is observed. Families in the Taos area used physicians more during sickness than did families of either Penasco or Questa. This is explained, in part, by the fact that physicians have been practicing at Taos village for some years, thus making such services more accessible to families in this general area. No doubt the relatively greater isolation from medical care of both Penasco and Questa places those areas at a disadvantage in respect to physicians. None of the families reporting the attendance of a medicine man during sickness lived in the Taos area.

During childbirth it was customary for a midwife to attend the mother, though families in the Taos (county seat) area relied less upon midwives than did families in the Penasco or Questa areas. Relative accessibility to physicians at Taos probably played an important part in these differences.

Most of the children had been delivered at home before the association began. Only approximately 1 mother in 25 went to the hospital for delivery. Families in the Penasco area were more accustomed to using hospital services at childbirth than were those in either the Questa or Taos areas. This may have been due in part to the accessibility to Embudo Presbyterian Hospital at Dixon and educational programs. The additional fact that it was relatively easy for the families near Taos to get a doctor to come to the home may be a possible explanation as to why Taos families did not make more use of Holy Cross Hospital.

Almost one family in five reported one or more deaths because of lack of medical care before joining the association. Typical comments in regard to this item by persons being interviewed were as follows:

"Baby died because we couldn't get to the doctor."

"Corelia die because no get doctor."

[1] Cf. George I. Sanchez, Forgotten People, the University of New Mexico Press, Albuquerque, N. Mex., 940, pp. 34–35.

"He got sick in Wyoming and came home and we couldn't get medical care in time."

"Little boy that I had, there was no way to get a doctor here, so he die of lack of care."

"Some of my little ones get sick and die. We couldn't get a doctor here."

"In 1918, I lose boy 13 years old on account of the scarcity of doctors. Couldn't get out."

"One baby died because doctor did not come from Alamosa. Fifteen days old when she die."

It is impossible to relate the reported number of deaths for lack of medical care to the total number of deaths by health service areas, as data pertaining to the latter are not available. If all deaths were proportionate to number of families in the sample by health service areas, families in the Penasco area reported almost two and a half times more deaths because of lack of medical care than did families in the Taos area; whereas families in the Questa area reported about twice as many deaths from lack of medical care as did families in the Taos area. Apparently isolation and consequent inaccessibility to medical care, greatest in the Penasco area and next in the Questa area, contributed significantly to the number of deaths that resulted from lack of medical care.

CHAPTER XV. DESCRIPTION OF THE TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION

ORGANIZATIONAL STRUCTURE

A simple statement of purpose might be that the health association was organized to obtain medical services for members of low-income families and to engage in any other business which will promote the health of such low-income families, including the financing of such activities.[1] But in a broader sense the health association has set itself the task not only of securing a minimum of medical care for low-income families but also of continued improvement in standards of care consistent with present-day medical knowledge and skills, and so to coordinate the gamut of services that high quality of care can be offered at a price that most families can afford to pay.

The governing body of the association is the board of directors which is composed of seven members of the association. Continuity on the board is assured by electing two directors for a term of 2 years, two for a term for 3 years, and three for a term of 1 year.[2] The principal duties of the board of directors may be outlined as follows:

(1) To select and delegate authority to management.

(2) To determine policies for guidance of management.

(3) To control expenditures by authorizing budgets.

(4) To keep members fully informed as to the business of the association.

(5) To cause audits to be made at least once each year or oftener, and reports thereof to be made directly to the board.

(6) To study requirements of the members and to promote good membership relations.

(7) To prescribe the forms of contracts between members and the association.[3]

The board also elects by ballot from among its own number a president, a vice president, and a secretary, each for a term of 1 year. The president is the executive officer of the association and as president has such powers and performs such duties as may be properly required of him by the board.[4] The board contracts for the services of a treasurer-manager and fixes the terms and conditions of employment. During the first year of operation the board met more than once a month and has been an active body in furthering the business of the association.

The duties of the treasurer-manager are outlined as follows:

(1) To have charge of direct management of the association's business in accordance with the instructions of the board of directors and under the supervision of the board.

[1] Articles of incorporation, art. I.
[2] Bylaws, art. VI, secs. 1 and 2.
[3] Bylaws, art. VI, sec. 1.
[4] Bylaws, art. VII, sec. 1. For duties of vice president and secretary see secs. 2 and 3.

(2) To engage and discharge employees of the association subordinate to him in accordance with authority given by the board.

(3) To keep accurate books of the business of the association and to submit them, together with all files, records, and inventories, etc., for inspection at any time.

(4) To give aid, advice, and recommendations to the board in the preparation of budgets, and to furnish to the board a monthly statement on the condition of the association's business, and submit an annual report at the regular meeting of members.

(5) To assist the board in formulating policies and to attend to such other duties and offices as the board may require.[5]

All evidence points to a free exchange of opinion between the treasurer-manager and the board of directors during the first year. The treasurer-manager attended most of the meetings of the board and entered freely into the proceedings. He reported directly to the board on general business management and also on the medical services. However, the association employed a medical director who administered the departments of medical service.

Actually, the administrative authority of the association was centralized in an executive who was also treasurer-manager and who delegated the administration of the professional services to a medical director. Five functional areas of administration existed: (1) Medicine, (2) nursing, (3) hospitalizaton, (4) dentistry, and (5) business management.

Medical personnel during the first year included a field medical director, a staff physician, two medical interns, and a dentist. The field medical director had some administrative responsibility in respect to professional services at the three hospitals, in prescription of drugs, and in referring cases to the Proctor Eye Clinic and to specialists in surgery. The Farm Security Administration functioned in a supervisory, financial, and consultative role to the board of directors and the treasurer-manager.

Nursing personnel included a supervising nurse and three full-time clinic nurses. Each clinic nurse had one assistant to help in routine work and to drive the ambulance.

The personnel of Holy Cross Hospital consisted of three graduate nurses and one nurses' aide. No permanent doctor was in charge although the staff physician acted in that capacity and performed the necessary surgery. Embudo Presbyterian Hospital had a doctor in charge, five graduate nurses, one dietitian, four nurses' aides, and two office workers. Thomas P. Martin Hospital had a doctor in charge, two graduate nurses, and three nurses' aides, but its main function is to provide hospital care to the Indians of Taos Pueblo.

The dental staff consisted of one clinic dentist and one referral dentist.

In addition to the treasurer-manager, the business staff included an administrative assistant, a secretary, a part-time field assistant, and a maintenance supervisor.

All personnel, including physicians, were paid on a straight salary basis. The full-time field medical director received a salary of $4,800, plus $600 for travel. The staff physician on a part-time basis was on a salary of $3,000 per year, without travel allowance.

[5] Bylaws, art. VII, sec. 4.

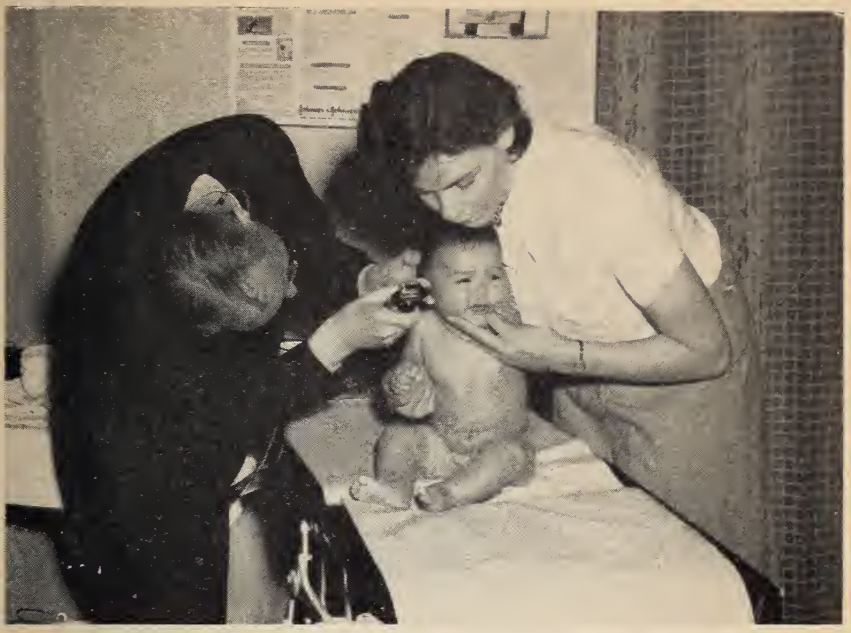

PLATE 5.—Periodic check-ups by competent physicians under modern clinic conditions in an area where the "medicine man" still plies his trade.

PLATE 6.—Nurse and ambulance are an indispensable team in isolated rural areas.

Clinic nurses were paid on a straight salary basis of $1,800 per year. Interns received a salary of $900 per year and living expenses.

The clinic dentist was on a straight salary basis, receiving $3,900 per year, plus $600 for travel.

The business manager received $2,500 per year, plus $300 travel expenses.

Clinics were located at Penasco (population about 300), Questa (population about 500), and Taos (population 965). Branch clinics are contemplated at Costilla and Ranchos de Taos. Each clinic had a full-time graduate nurse who received patients on days when the doctor was not present and who also made home visits. The doctor conducted clinics 2 half-days a week at each clinic. In addition, the doctor could be seen after 3 p. m. at Taos on 4 days each week.

The clinic nurse was on hand from 9 a. m. to 12 m. each weekday morning. The dentist was available 1 day each week at Penasco and Questa, and 4 days at Taos. Telephone service was available at all times. The clinic doctor and dentist operated out of Taos, traveling to each clinic by automobile.

Questa and Penasco health centers had a clinic nurse for the entire period of 12 months and nursing services at Taos were available during about 5 months of the first year's operation.

The service area of Penasco health center in the first year included 14 small communities in the southern part of the county, comprising approximately one-fifth of the total population of the county. Questa health center included in its service area 6 small communities in the northern part of the county with about one-fifth the population of the county. Taos health center included 20 communities in its service area and approximately three-fifths of the population of the county. However, the total association membership of 5,935 was divided between the health centers as follows: Penasco, 29.9 percent; Questa, 25.8 percent; and Taos 44.3 percent.

MEMBERSHIP COMPOSITION AND SELECTION

As the Taosenos are descendants of the early Spaniards who fought their way up from Mexico, and the native Indians, it is not surprising that more than two-thirds of the families interviewed (68.1 percent) spoke only Spanish in the home. None spoke English only, but 31.1 percent spoke both English and Spanish.

For purposes of contrast and analysis the age-sex composition of the membership sample was compared with those of the United States total population and Taos County at the census of 1940. The principal differences may be summarized as follows: (1) The association and Taos County populations included a larger proportion of children in contrast to the total United States population; (2) the association and Taos County had lower percentages of the population in the ages 15–45, or the "productive" years of life; and (3) the association and Taos County contained a disproportionately smaller share of aged persons when compared with the total United States.

The sex ratio of the association population (number of males to 100 females) was 99, compared with 101 for both the total United States and Taos County populations.

The original bylaws, adopted October 21, 1942, stipulated that the association would admit as members only persons who were rural

dwellers, who resided in the territory serviced by the association, and who were approved for membership by the board of directors.[6] In amending the bylaws on July 9, 1943, the words "only persons who are rural dwellers" were omitted. These were the only stipulations placed on membership during the first year of operation and under them every family in Taos County became eligible for membership if they met certain economic requirements. Only families with less than $1,200 "gross" or "net annual" income were accepted, meaning total cash income of the family during the preceding year.

According to the original bylaws only family heads engaged in "agricultural pursuits" were eligible to share in the benefits from the grant money from Farm Security.[7] Of the 119 sample families, 5 reported both nonagricultural work and sharing in grant money. They were: One elderly widow dependent upon children, 2 industrial defense workers, 1 family head engaged in lumbering, and 1 woman working in a convent.

In a society so homogeneous as that of Taos it is often difficult to distinguish between agricultural and nonagricultural dependency because of the long history of absolute dependence upon agriculture for subsistence. Even the postmaster, priest, school teacher, minister, etc., have a vital interest in the agricultural community, and to exclude such persons from benefits of the program is purely arbitrary

OTHER CHARACTERISTICS

Mobility.—More than one-third of the family heads (34.5 percent) were working away from home at the time of interview and an additional 21.0 percent were away at some period of the year. Only 39.5 percent of the families worked the entire time on the farm. Of the 66 family heads who worked off the farm, 78.8 percent worked outside the State. Almost one-third (32.7 percent) of the heads outside the State were working in Wyoming, 23.1 percent in Colorado, 21.2 percent in California, and 9.6 percent in Utah. The remaining 9.6 percent were in Arizona, Nevada, and Kansas. Information was not available for 2 heads. A majority (53.9 percent) of the heads of families working in other States were engaged in agriculture as laborers; the remainder (42.3 percent) were in industrial work.

Schooling.—Although it must be acknowledged that formal schooling is a poor index of educational attainment in the more or less bookless society of the Taoseno, it becomes an important consideration when an effort is made to bring these people into contact with the outside world. Therefore, it is significant that less than one-fifth (18.4 percent) of the heads of families had completed the eighth grade or more, and 41.2 percent had completed less than 4 years of school. Wives of the heads of families had completed slightly more grades on the average than heads of families, 26.0 percent finishing eight grades or more.

In the great majority of cases schooling was entirely in Spanish. An illustration of what this means follows: Almost all family interviews were carried on in Spanish but the person interviewed was asked to state a preference between English and Spanish for the interview. In one instance a young wife, who indicated that she had completed 9 years of school, chose to receive the questions in English. After six

[6] Bylaws adopted July 9, 1942, art. IV, sec. 1.
[7] Bylaws, art. IV, sec. 3.

or eight questions had been attempted it became apparent that they were unintelligible to her. She finally admitted as much and asked that the interview start over in Spanish.

Living conditions.—Four indexes of rural living were checked for each family interviewed as follows: (1) Source of drinking water, (2) type of toilet, (3) screens on the home, and (4) number of persons per room.

The high proportion of member families getting their drinking water from an open well or an irrigation ditch reflects the generally low level of sanitation in Taos County (table 44). High infant mortality rates are a natural concomitant of such conditions. Furthermore, there is a general lack of adequate toilet facilities (table 45). The need for improved environmental sanitation as a preventive step is clearly indicated by these data.

TABLE 44.—*Source of family drinking water for members of the Taos County health assocation, 1942–43*

Source	Number	Percent
Open well	75	63.0
Protected well	4	3.4
Irrigation ditch	27	22.7
River	6	5.1
Piped water	3	2.5
Spring	3	2.5
No information	1	.8
Total	119	100.0

Source: Sample Survey, November–December 1943.

TABLE 45.—*Toilet facilities of member families of the Taos County health association, 1942–43*

Type	Number	Percent
Pit privy (sanitary)	21	17.7
Common privy	94	79.0
Flush toilet	3	2.5
None	0	.0
No information	1	.8
Total	119	100.0

Source: Sample Survey, November–December 1943.

The common housefly plays a considerable part in the spread of many infections, and especially as concerns those intestinal diseases that can be transferred from one person to another. Although screening against flies does not insure a complete measure of protection from these diseases, it does help to mitigate the problem. It may indicate also the amount of public interest toward the insect as a spreader of disease (table 46).

Perhaps the most significant of these indexes is the index of overcrowding in the home. Forty-two percent of the cases reported 1.51 persons or more per room. The average household in the sample contained 5.2 persons; the average house had 3.6 rooms. What this means in terms of health may be well illustrated by one experience. During the minor influenza epidemic which occurred in December 1943, the supervising nurse made a call on a member family. At first only 1 of the 6 children in the household was sick, but when

the nurse made her second visit, she found all 6 children sick in bed, not in 6 but in 1 bed. Two of the six were taken to the hospital immediately suffering from pneumonia.

TABLE 46.—*Screens on the houses of members of the Taos County health association, 1942–43*

Screens	Number	Percent
Yes	66	55.5
No	51	42.8
No information	2	1.7
Total	119	100.0

Source: Sample survey, November–December 1943.

CHAPTER XVI. ANALYSIS OF SERVICES AND COSTS DURING THE FIRST YEAR OF OPERATION, 1942–43

SCOPE AND ADEQUACY OF SERVICE

Primary emphasis during the first year of operation was on diagnosis and treatment of disease. In almost all cases, patients were required to visit one of the clinics to secure the services of a physician, home care being limited to visits by clinic nurses. In case the patient was unable to come unaided to the clinic, he or she was brought in by ambulance.

All hospitalized patients were under supervision either of the clinic physician or the hospital doctor. Limited dental care was given at the various clinics or by referral. Hospitalization up to 15 days a year was available to each patient.

Medicines were given on prescription only. Members and dependents were entitled to eye examinations, treatments, and glasses only on referral to the Proctor Eye Clinic, a privately sponsored service. Ambulance service was available at the clinics, for at least a part of the year. Special surgery was available when required through a fellow of the American College of Surgeons in Santa Fe. Orthopedic services were available to children with crippled limbs, harelips, cleft palates, etc., on referral to the county welfare department. Active tuberculosis cases and communicable disease services were also referred to the county welfare department.

In all professional matters the medical staff was free to regulate and discipline itself. Standards in hiring professional personnel were predetermined by the local medical and dental societies. It happened that the medical director of the association was at the same time president of the Taos County Medical Society. Standards of the local medical society have barred one local osteopath-optometrist from participation in the program of the local association. However, no formal stipulation of qualifications, character, and competence for physicians and assistant personnel were made; nor were the standards of professional work and prescribed procedures for effectuating and enforcing these standards clearly defined.

During the first year little time was available for improving professional training after appointment. Staff meetings were held but discussion centered on administrative details. Some investigative work was encouraged, particularly in the dental field where a school survey of health needs was conducted in cooperation with the State dental society and health department. Recently, surgical demonstrations have been held by outstanding surgeons from Albuquerque.

Little opportunity for rest and recuperation from long hours of work have been given to the professional staffs. It has been almost impossible to limit the number of patients accepted for care by the association. Although it was desired that no less than half an hour should be allowed for the general examination of a new patient and 15

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minutes for a revisit, this has not been possible. Obviously, such allowances have not been made when as many as 20 patients have been seen by the clinic physician in a half day. Later the clinic day was increased to a full 8 hours and this alleviated the situation somewhat.

Professional supervision of the group's medical service was headed in the medical director and the supervising nurse. Monthly meetings of the clinic staff were held to review the various problems that arose and to evaluate the quality of service being rendered.

One of the most frequent objections leveled at group medical programs has been that patients do not have "free choice" in selecting a physician. Little trouble with this consideration was experienced by the association. Only one general physician was available, but the factor of "free choice" seems not to have aroused any feelings on the part of members. This may be partly explained by the fact that except in dire necessity, a large majority of the members and their dependents had never availed themselves of the services of physicians before joining the association. It must be remembered, also, that for many years Taos County had only one physician, which meant that families took what they could get, not what they may have chosen. Some members have indicated a preference for the local osteopath and a few have even gone to him although the association does not pay for his services.

Furthermore, the problem of continuity of care has not been raised simply because the patient was continuously under the supervisory care of one general physician. Only when the patient was admitted to a hospital was supervision shifted and this has been accomplished satisfactorily.

The association has been beset with problems of securing sufficient personnel during the first year primarily because of the war. The county has lost two of its five prewar doctors and has not been able to replace them. Offers have been made to outside physicians but, for one reason or another, these offers have not been accepted. The lack of a long-term plan has handicapped the management in contracting with doctors.

The shortage of personnel has placed an undue strain on those employed by the association and this has created unfavorable personnel standards. A turn-over of 100 percent in nursing personnel during the first year has jeopardized the continuity of the program. Nurses have also been required to expend their energy doing nonprofessional work such as ambulance driving.

After the clinic dentist was hired in February 1943 he suffered a disabling accident that disrupted the dental care program.

Continuity in the program has only been preserved in the main by the continuous service of the treasurer-manager, and the field medical director.

PERSONNEL AND HOSPITAL FACILITIES

A comparison of the actual personnel and hospitalization requirements of the 5,935 persons covered in the membership of the association and ideal standard requirements according to Lee and Jones [1] allows some appraisal of the adequacy of the association's personnel and hospital facilities for the first year.

[1] Estimates derived from Roger I. Lee, M. D., and L. W. Jones, The Fundamentals of Good Medical Care, Publication No. 22 of the Committee on the Costs of Medical Care.

Physicians.—It is estimated by Lee and Jones that satisfactory medical care, including prevention, diagnosis, and treatment, requires a ratio of 1 physician to about every 700 persons, if the sex and age distribution is "average." [2] On this basis the 5,935 members and dependents covered in the program of the association would need 8 physicians in comparison with the 2 actually available during the first 12-month period. These estimates, however, are based on individual practice, and make no allowances for the greater efficiency of group organization. Allowing for this factor, using a ratio of 1 physician to 800 persons covered, an estimate of 7 physicians is probably generous for the requirements of the association.

Perrott and Davis [3] estimated that nationally the average number of persons per physician would reach 1,500 early in 1944. If this minimum figure is used as a minimum standard of comparison, 4 physicians would have been required for the association members, or twice as many as were hired by the association during its first year. The clinic physicians served the whole community to some extent. Eight percent of the clinic attendance during the first year was by nonmembers.

Regarded from an ideal standpoint, at least 12 different specialities are required if a full range of medical care is to be provided.[4] Yet the resident physician at Holy Cross Hospital, who was employed by the association, took care of all medical, obstetrical, and surgical cases. Neither of the 2 full-time physicians employed were specialists, but the association arranged for the services of an ophthalmologist through the Proctor Eye Clinic at Taos and limited use was made of other specialists in surgery at Santa Fe and Albuquerque. Surgical cases were contracted for by the association. Two Mexican interns were added to the medical staff at the beginning of the second year of operation.

Dentists.—According to Lee and Jones a group of 5,935 persons would require approximately six dentists, one dental X-ray technician, two dental hygienists, and one dental laboratory technician. During the first year's operation the association employed a full-time dentist whose services were available for approximately 4 months and arranged for the services of one referral dentist for the entire period.

Hospitalization.—For an average population, a standard of 1.4 general hospital days annually per person is set forth by Lee and Jones. This would mean 8,300 hospital days per year for the association, not including approximately 850 days for newborn infants. Assuming an average occupancy of 80 percent, such care would require 29 beds and 3 bassinets. Actually, the 3 hospitals, with which the association had agreements, had a total of 78 beds and 20 bassinets. These hospitals were also available to the public at large, but since association members and dependents comprised approximately 40 percent of the 1943 population of Taos County, it is reasonable to assume that 31 beds and 8 bassinets were available as against requirements of 29 beds and 3 bassinets.[5]

[2] That is it compares favorably with the age and sex composition of the total United States population.

[3] T. St. J. Perrott and Burnet M. Davis, The War and the Distribution of Physicians, Public Health Reports, vol. 58, No. 42, October 15, 1943, p. 1552.

[4] Dean A. Clark, M. D., and Katherine G. Clark, Organization and Administration of Group Medical Practice, Twentieth Century Fund, October 1941, p. 85.

[5] On the basis of the 10-percent sample of membership it was found that two-thirds of the total hospital days of the association were allocable to Holy Cross Hospital and approximately one-third to Embudo Presbyterian Hospital, with a negligible number at Thomas P. Martin Hospital. Using these facts as a basis of calculation it is found that only 28 beds and 4 bassinets were available as against requirements of 29 beds and 3 bassinets.

Laboratory and X-ray technicians; physical therapists.—If all desirable laboratory work is performed, about 30,000 laboratory procedures annually would be required by a group of 5,935 persons, according to Lee and Jones. Of course, many of these may be performed by the public health authorities. For diagnosis and treatment of disease, it may be expected that about two laboratory procedures a year will be needed for each individual covered, or 12,000 for the association. One technician may be expected to perform about 10,000 procedures a year; thus, one laboratory technician might be required. The association did not employ a laboratory technician during the first year.

About 1,500 diagnostic X-rays and 300 X-ray treatments are needed each year for 5,935 individuals. At least one X-ray technician working in a central laboratory will be needed to handle this work. The association did not employ an X-ray technician.

It is to be expected that 5,935 persons will need about 1,200 physical therapy treatments per year. This volume of service would not occupy the full time of one physical therapist, therefore, it would be desirable to combine the functions of a physical therapist with some other technician, such as a nurse. No physical therapist, part or full-time, was employed during the first year.

Pharmacists.—Approximately 12,000 prescriptions might be needed for 5,935 persons. Here again the services of one pharmacist would be insufficiently employed and the employment of such a technician would not be warranted. No pharmacist was employed during the first year.

Nurses.—It is estimated that, for a complete home nursing service, two full-time graduate nurses are needed for the 5,935 persons (1 nurse to 3,000 persons). But since the nursing service was based upon clinic work, involving technical, laboratory, secretarial, and even ambulance driving, such a standard is not an adequate basis of comparison.

It will require approximately 1 hospital nurse for every 4 general beds, or 20 nurses for the 78 beds in the 3 hospitals. Actually, only 10 nurses were employed by the hospital managements. On this standard, Holy Cross Hospital was understaffed by 5 nurses, Embudo Presbyterian Hospital by 2 nurses, and Thomas P. Martin Hospital by 4 nurses. However, some of this apparent personnel deficiency was compensated for by 1 nurses' aide at Holy Cross Hospital, 4 nurses' aides at Embudo Presbyterian Hospital, and 3 nurses' aides at Thomas P. Martin Hospital.

PREVENTIVE SERVICES

Periodic health examinations.—It was impossible to furnish systematic health examinations during the first year because of shortage of personnel. Estimates derived from Lee and Jones suggest that infants under 1 year may be considered to require at least four examinations yearly, children from 1 to 4 need two, and those from 5 to 19, one. Adults from 20 to 34 need to be examined only once in 2 years, those between 35 and 64 once a year, and those 65 and over twice a year. It may be estimated that if such standards of preventive care had been accepted by the association it should have been prepared to furnish a total of about 6,900 health examinations to the

5,935 persons covered. Obviously, it was not possible to do this with available professional personnel. All in all, it may be estimated that the full time of one general physician could reasonably be devoted to preventive work of this kind, or one-third of the time of three physicians.

Immunizations.—Much of the immunization work among membership has been done in cooperation with the health department. No complete records of the extent to which this service has been rendered are available. In 1940, under the nursing service of the department of public health, 729 persons were vaccinated for smallpox, 978 were given typhoid immunizations, and 412 were inoculated against diphtheria. As the association rolls included approximately one-third of the county population it can be roughly estimated that about 700 immunizations were given to persons covered in the health program during 1942–43 in a total membership of 7,000. This is at the rate of approximately 10 percent per year. Thus 10 to 15 years would be required at the present rate of service to completely immunize the whole membership, hardly a satisfactory record.

Health education.—The greatest educational mechanism is the health program itself. As one individual put it: "The most effective educational program is to get them (families) to put the money in and get a taste of medical care." Thus the individual work of physicians and nurses is the main channel for disseminating health education but this is supplemented by group meetings and special clinics. Such group work necessarily has been relegated to secondary place as a function of the clinic nurses because the burden of curative care has been so great for the physicians. The associations sponsored 12 clinics and group meetings in cooperation with the department of public health during the first year, with an average attendance of 32 persons per meeting.

The association has relied upon the public schools, the health and public welfare departments, the Red Cross, the anti-tuberculosis association, and the Taos County project to carry the burden of health education. The excellent contributions of the Taos County project to the educational and planning phases have now been lost to the Taosenos since its termination in August 1942.

THERAPEUTIC CARE

Clinic care.—Population covered in membership is greater in the Penasco and Questa medical-service areas than in the Taos medical-service area (table 47). No doubt the proximity of nonassociation doctors and health services in the vicinity of Taos has some effect upon the extent of membership in the association, plus the fact that regulations placed upon membership effectively bar a disproportionate number of the Taos families from membership in the association.

Although only 38.1 percent of the total population of Taos County was enrolled in the health association, membership covered 65.4 percent of the farm population.

Penasco clinic, serving 29.9 percent of the total members and dependents, provided 34.1 percent of the total volume of medical services during the first year which includes visits to clinic doctor and clinic nurse, and visits by the clinic nurse to the home of the members (table 48). Questa clinic, serving 25.6 percent of the members and

dependents, rendered 25.3 percent of the total volume of medical services. Taos clinic, serving 44.3 percent of the total members and dependents, provided 40.6 percent of the medical services.

TABLE 47.—*Comparison of total population and number of members and dependents covered by the Taos County health association during the first year of operations, by health center area, Oct. 1, 1942, to Sept. 30, 1943*

Area	Total population Mar. 1, 1943	Total members and dependents 1942–43	
		Number	Percent of total
Penasco	[1] 3,273	[2] 1,785	54.5
Questa	[1] 3,311	[2] 1,636	46.4
Taos	[1] 9,012	[2] 2,614	29.0
County total	15,596	[2] 5,935	38.1

[1] Interpolated on the basis of 15.8 percent decrease in population from Apr. 1, 1940, to Mar. 1, 1943, for the county as a whole.
[2] Includes 34 persons for which no residence information was available prorated to the three areas.

Source: Sixteenth Census of the United States.1940, series P–3, No. 38, table 3, p. 15.

Penasco has a relatively high percentage of visits to the clinic nurse, Questa a high percentage of home visits by the clinic nurse, and Taos a high percentage of visits to the clinic doctor with very few nurse services, as such (table 48). These data indicate wide variability in the type of medical care provided at each health center.

TABLE 48.—*Volume of medical services provided to members and nonmembers by clinic doctor and nurse during the first year's operation of the Taos County health association, by health center, Oct. 1, 1942, to Sept. 30, 1943*

	Penasco		Questa		Taos		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Visits to clinic doctor	1,906	28.1	1,572	23.2	3,298	48.7	6,776	100.0
Visits to clinic nurse only	682	70.8	248	25.8	33	3.4	963	100.0
Home visits by clinic nurse	230	42.8	274	51.0	33	6.2	537	100.0
Total volume of services	2,818	34.1	2,094	25.3	3,364	40.6	8,276	100.0
Total clinics held	103	19.8	102	19.6	316	60.6	521	100.0

Source: Monthly General Statistical Reports by Clinic, association records.

Wide variation between the various health centers also exists in the volume of medical services given at each clinic period during the year (table 49). The greater volume of services per clinic period at Penasco and Questa health centers is explained in part by the low ratio of clinic periods to members and dependents at Penasco and Questa, 58 per 1,000 and 67 per 1,000, respectively, in contrast to the higher ratio of 122 clinic periods per 1,000 membership at Taos.

Average attendance at clinics during the first year of operation was, generally, highest during the winter months, from September through March, with the exception of the first month of operation. Lowest average attendance at clinics occurred during the summer months, from April through August, and during the first month of operation.

TABLE 49.—*Volume of medical services per clinic period, by health center service area of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

	Penasco	Questa	Taos	Total
Visits to clinic doctor per clinic	18.5	15.4	10.4	13.0
Visits to clinic nurse only per clinic	6.6	2.4	.1	1.8
Home visits by clinic nurse per clinic	2.2	2.7	.1	1.0
Total volume of services per clinic	27.3	20.5	6.5	15.9

Source: Monthly General Statistical Reports by Clinic, association records.

The pattern of visits to the clinic doctor by month was fairly uniform; that is, there were no great extremes in number of visits. However, the difference between the highest attendance and lowest attendance was 339 visits (table 50). The following months were below average in number of visits to the clinic doctor: October, 1942; January, April, June, and July, 1943.

TABLE 50.—*Visits of members and nonmembers to clinic doctor, by month, during the first year's operation of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

	Attendance			Attendance	
	Number	Percent		Number	Percent
1942—October	353	5.2	1943—May	569	8.4
November	571	8.4	June	535	7.9
December	692	10.2	July	562	8.3
1943—January	558	8.2	August	569	8.4
February	601	8.9	September	584	8.6
March	654	9.7			
April	528	7.8	Total	6,776	100.0

Source: Monthly General Statistical Reports, association records.

Nonmembers were accepted rather freely at the clinics and were assessed regular fees. The charge to nonmembers was $1.50 per clinic visit while physical examinations ranged from $2 to $5 at the discretion of the doctor. The number of nonmember visits to the clinic doctor was 92.1 percent higher during the last 6 months of operation, 1942–43, than during the first 6 months. The high point of nonmember participation in this service was reached in July 1943.

Nursing service, which includes visits in home and clinic rose perceptibly during the latter months of the first year's operation. About two-thirds of the recorded nursing services were rendered during the last half year of operation. This increase in use of the nursing service may be due to seasonal variations as well as to absolute increases in volume of nursing service as the program progressed. Nonmembers made relatively more use of the nursing services than of the clinic doctor but no noticeable trend in nonmember participation is to be observed.

The dominance of clinic physician services at Taos is accounted for in part, by the fact that no nurse was available at Taos health center until April 1943, and service was disrupted in August when the Taos nurse had an automobile accident which incapacitated her for some time. In addition, home visits by the Taos clinic nurse were discouraged during the last 3 months of the first year.

Hospital care.—The hospital plan provided for 15 days of hospitalization for each patient at the Holy Cross Hospital at Taos, the Embudo Presbyterian Hospital at Embudo, or the Thomas P. Martin Hospital at Taos Pueblo. The patient chose the hospital he or she prefered. Holy Cross Hospital and Thomas P. Martin Hospital were accessible to families living in the central and northern parts of the county, while Embudo Presbyterian Hospital was accessible to families living in the southern part. Almost three-fourths of all cases were hospitalized at Holy Cross Hospital, 23 percent at Embudo Presbyterian Hospital, and 2 percent at Thomas P. Martin Hospital.

The association attempted to hospitalize all obstetrical cases during the first year of operation but it is difficult to ascertain how effective this effort has been since birth statistics are not complete in the office records.

Surgery, ambulance services, and nursing care were provided. Full medical histories, physicians' finding, laboratory investigations, roentgenographic interpretations, and progress reports were maintained at each hospital. The usual practice was to provide ward accomodations at a rate of $4 per day.

Fifty-four percent of the total hospital cases were cared for during the last half of the year. Of the hospitalized cases during the first year, 71.2 percent were persons 15 years old and over, although this age groups represented only 54.7 percent of the total number of members and dependents.

Hospitalization during the first year averaged 5 days per case.

Cooperation With Proctor Eye Clinic.—During the first year of operation the association cooperated with the Proctor Eye Clinic in providing complete eye service (table 51). The objective was to correct refractive errors in school children and presbyopia in adults.

TABLE 51.—*Referrals to Proctor Eye Clinic, by month, during the first year's operation of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

	Under 15 years	15 years and over	Total		Under 15 years	15 years and over	Total
1942				March	7	21	28
				April	5	20	25
October	3		3	May	5	10	15
November	5	12	17	June	1	9	10
December	12	15	27	July	1	4	5
				August	1	5	6
1943				September		1	1
January	6	13	19	Total	51	121	172
February	5	11	16				

Source: Transcribed from association records.

Dental.—Dental care provided for the extraction of teeth and limited treatment of the oral mucous membranes for all ages. Children were provided with protective dental services and health education was attempted with special effort on children of predraft age. The dental work was divided between the clinic dentist and a referral dentist.

Dental care was provided at the health centers only during the months of February, March, July, and August, but referral dentistry was available for the entire period. During the 4 months the clinic

dentist was on duty, however, he rendered approximately three times as many dental services as were rendered by the referral dentist during the entire year. Of the total services rendered 76.4 percent were extractions. Extractions constituted 70 percent of the clinic services and 93 percent of the referral services. There were 13.7 times as many extractions as fillings.

TABLE 52.—*Dental services provided by clinic and referral dentists during the first year's operation of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

	Clinical patients			Referred patients			Total		
	Under 15	15 and over	Total	Under 15	15 and over	Total	Under 15	15 and over	Total
Fillings	32	31	63	46	6	12	38	37	75
Treatments	21	33	54	4	7	11	25	40	65
Extractions	124	593	717	63	309	372	187	902	1,089
Examinations	46	125	169	-------	-------	-------	96	123	169
Other	17	5	22	-------	4	4	17	9	26
Total	240	785	1,025	73	326	399	313	1,111	1,424

Source: Transcribed from association records.

Although children under 15 years of age represented 45.3 percent of the total members and dependents, only 22 percent of the dental care was given to this age group. A total of 169 dental examinations were given during the first year, which is less than 3 examinations per 100 persons.

Volume of services.—During the first year's operation, the association provided 12,641 different services, of which 11,848, or 93.7 percent, were for members and dependents (table 53). These services cost the members of the association a total of $4,393, or $0.37 per service. The cost to nonmembers totaled about $1,000, or $1.26 per service.

TABLE 53.—*Summary of services provided to members and their dependents during the first year's operation of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943* [1]

	Number	Number per 1,000 persons
Clinic:		
Visits to clinic doctor	6,224	1,049
Visits to clinic nurse	816	137
Home visits by clinic nurse	443	75
Total clinic services	7,483	1,261
Eye cases (treatments)	172	29
Dental (extractions, fillings, etc.)	1,424	240
Specialist	10	2
Hospital days	2,759	465
Total	11,848	1,996

[1] Does not include services rendered to nonmembers.

Incidence of sickness and injury.—Penasco clinic, with a rate of 105.9 cases of sickness and injury per 1,000 population, had the highest incidence of sickness and injury during the first year (table 54). The

first four broad-cause groups at Penasco were (1) diseases of the nervous system and sense organs, (2) diseases of the respiratory system, (3) diseases of the skin, and (4) diseases of the digestive system, ranked in descending order.

TABLE 54.—*Number of cases and rate of sickness and injury among 119 sample families during the first year's operation of the Taos County health association by clinic, 1942–43*

List of diagnosis categories	Penasco		Questa		Taos		Total	
	Cases	Number per 1,000 population	Cases	Number per 1,000 population	Cases	Number per 1,000 population	Cases	Number per 1,000 population
Infections and parasitic diseases	1	0.6	2	1.3	2	0.8	5	0.8
Neoplasms	1	.6	0	0	0	0	1	.2
Rheumatic fever, diseases of nutrition and of the endocrine glands, other general diseases and avitaminoses	4	2.3	3	2.0	1	.4	8	1.4
Diseases of the blood and blood-forming organs	1	.6	2	1.3	0	0	3	.5
Chronic poisoning and intoxication	0	0	0	0	0	0	0	0
Diseases of the nervous system and sense organs	33	18.6	12	7.9	19	7.3	64	10.8
Diseases of the circulatory system	2	1.1	7	5.1	1	.4	10	1.7
Diseases of the respiratory system	30	16.9	21	13.8	21	8.1	72	12.2
Diseases of the digestive system	24	13.5	23	15.1	28	10.8	75	12.7
Diseases of the genito-urinary system	6	3.4	3	2.0	12	4.6	21	3.6
Deliveries and complications of pregnancy, childbirth, and the puerperium	5	2.8	3	2.0	2	.8	10	1.7
Diseases of the skin	27	15.2	14	9.2	16	6.2	57	9.7
Diseases of the bone and organs of movement	2	1.1	0	0	2	.8	4	.7
Congenital malformations	0	0	0	0	0	0	0	0
Diseases peculiar to the first year of life	2	1.1	0	0	0	0	2	.3
Senility and other and ill-defined diseases	15	8.4	10	6.5	18	6.9	43	7.3
Injuries and poisonings	7	3.9	9	5.9	5	1.9	21	3.6
Other enumerated conditions, without sickness	22	12.4	23	15.1	12	4.6	57	9.7
Not ascertainable	6	3.4	5	3.3	1	.4	12	2.0
Total	188	105.9	137	89.7	140	53.9	465	78.8

Source: Association records.

The most important broad cause group at Questa was (1) diseases of the digestive system, followed by (2) other enumerated conditions without sickness, (3) diseases of the respiratory system, and (4) diseases of the skin.

At Taos, the most important broad cause groups were (1) diseases of the digestive system, (2) diseases of the respiratory system, (3) diseases of the nervous system and sense organs, and (4) senility and other ill-defined diseases.

On gross inspection of the data for each clinic, there is indication that the population of the Penasco area had a relatively high incidence of diseases of the nervous system and sense organs, a relatively high incidence of diseases of the respiratory system, and a relatively high incidence of diseases of the skin, whereas Questa had a relatively high rate of injuries. The high incidence of disease in the Penasco area may be due, in part, to the long period of isolation of this area which cut off the benefits of modern medical science and sanitation. The greater number of injuries in the Questa area may be due, in part, to the hard-rock mining in the vicinity, which is a source of supplemental income by farm people.

COSTS

The total expenditures for the first year's operation was $70,626 of which $40,753, or 57.7 percent, went for cost of services and $29,638, or 42.3 percent, for land, buildings, equipment, etc. Cost of services during the first year averaged $35.59 per family (table 55). If the capital assets are depreciated at 5 percent annually and this figure added to the cost of services, an average cost per family of approximately $36 is arrived at. Costs per family and costs per capita of the various services are summarized in table 55.

TABLE 55.—*Summary of cost of services provided by the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

Service	Total cost	Cost per family	Cost per capita
Clinical [1]	$8,391	$7.33	$1.41
Medical [2]	11,637	10.16	1.96
Dental	3,416	2.98	.58
Hospital	9,790	8.55	1.65
Management	7,519	6.57	1.27
Total cost	40,753	35.59	6.87

[1] Includes salaries of nurses and clinic staff, ambulance costs, maintenance, and operations.
[2] Includes salaries and travel of staff physicians, referral services, medical interns, drugs.

Source: Audit report.

A recapitulation of receipts of the association shows that 81 percent of the funds came from the FSA grants and only 6.3 percent from membership fees, or $4.07 per family annually (table 56). If membership fees are considered in relation to $40,753, or total cost of actual operations during 1942–43, they constitute 11.4 percent of the cost.

TABLE 56.—*Receipts of the Taos County health association from Oct. 1, 1942, to Aug. 31, 1943*

	Dollars	Percent
Membership assessments	4,664	6.3
FSA grants	60,555	81.0
Other contributions	1,055	1.4
Contributions in forms of property	7,556	10.1
Nonmember clinic fees	884	1.2
Total cash receipts	74,714	100.0

Source: Audit report.

On the average, each clinical service (to members and nonmembers) cost the association approximately $2.11. Such costs on the average compare favorably with usual "fees for service." Average cost per clinic held was $33.58.

Each hospitalized case cost $24.68 on the average, or $4.90 per day. This figure is calculated by including the salary of the association's staff physician, who devotes his time to handling hospital cases at Holy Cross Hospital, with the other expenses of hospital care.

Specialist care averaged $75.20 per case and eye service $3.19 per case.

Dental services (extractions, fillings, and treatments) cost an average of $2.63.

Management cost about 11.1 percent of the total expenditures during the first year of operation.

METHOD OF DETERMINING FAMILY FEE

Membership fees for the first year of operation were computed as follows:

(1) For nonfarm families, a flat annual fee of $32.

(2) For families now or last engaged in agriculture, 1 percent of the annual family income up to an amount equal to $100 per person in the family, plus 3 percent of the family income over an amount equal to $100 per person in the family. For example, a family of three persons with $300 annual income paid $3, whereas a family of three persons with $800 annual income paid $18.

(3) For individuals, one-half the fee calculated as for a family of two with the same income.

The average fee assessed during the first year's operation was $4.07 and the total cost of services averaged $35.59 per family. Therefore, the average subsidy during the first year averaged $31.52 per family.

CHAPTER XVII. WHAT MEMBERS THINK ABOUT THE HEALTH ASSOCIATION

PARTICIPATION IN AND KNOWLEDGE OF THE HEALTH ASSOCIATION BY MEMBERS

As the form of voluntary association entered into here is essentially that of a cooperative it is important that members, who actually control the organization through their vote, should understand it. One of Goethe's proverbial sayings runs as follows: "One does not possess that which one does not comprehend." It aptly applies in this situation: Apparently only 3 family members interviewed, less than 3 percent, showed a clear knowledge of the purpose of the association; 20 heads, or 16.8 percent, showed fair knowledge; and 79.9 percent of the family members interviewed showed poor or no knowledge of the purpose for which the association was organized.

The concept of mutual aid or cooperation was evident only in three interviewees who were recorded as showing a clear knowledge. Statements of two of these interviewees follow:

(1) "The purpose of the association is to cooperate with people to have a program of good health."

(2) "It takes care of rural sanitation and checks upon illness. By getting together we can use all the preventive measures within our power."

The most general answers among those rated as having inadequate knowledge of the purpose were:

(1) "To give medical service."
(2) "To help families in need of medical care."
(3) "To help families get a doctor."
(4) "To look after sick persons."
(5) "To better up the health of people."
(6) "To help them when they get sick."
(7) "To attend to the members or they can't get fees out of them."
(8) "If one of my daughters gets sick we know where to get medical care."

Forty-eight families, or 40.4 percent of those interviewed, reported that they did not know the treasurer-manager. Of those interviewed, 21.9 percent answered either that they did not know the association had a board of directors or positively stated that it had none. Only 40.3 percent of the interviewees could name one or more members of the board.

Over half of those interviewed knew exactly the amount of their membership fee for the first year. Less than half (45.4 percent) had a fair to clear knowledge of how the first year's fee was determined, 19.3 percent had a poor knowledge, and 34.5 percent had no knowledge.

Of the members interviewed, 13.5 percent said that they attended the annual meeting in Taos on July 9, 1943, and 32.8 reported attend-

ance at one or more of the local community or health committee meetings.

News and information travels quickly through the villages, mostly by word of mouth. Thus the seemingly impervious wall between the people of the village and the outside is readily overcome when it is possible to recruit emissaries of the new culture from within. Local mechanisms for dispensing general information become a necessity in the Taos culture.

Practically all members interviewed (97.5 percent) said they felt free to make suggestions to the nurses, managers, or directors for improving the association's program, but only 8.4 percent had actually availed themselves of the opportunity during the first year.

Almost two-thirds of the members interviewed (62.2 percent) had urged their neighbors to join and 52.1 percent reported that they knew some neighbors had joined at their suggestion.

OPINIONS OF THE MEMBERS IN REGARD TO HEALTH SERVICES

All but two members interviewed felt the association was a good thing for their family, community, and county. The various services offered by the association were rated by the membership sampled as shown in table 57.

TABLE 57.—*Opinion of membership of the Taos County health association regarding specified services included in the first year's health program, Oct. 1, 1942, to Sept. 30, 1943*

	Percentage of the members interviewed reporting					Total
	Favorable	Neutral	Unfavorable	No opinion	No information	
Doctors	91.6	0.0	5.1	2.5	0.8	100.0
Medical interns	58.0	.0	.0	41.2	.8	100.0
Clinic dentist	58.8	.0	1.7	38.7	.8	100.0
Nurses	86.6	.0	.8	11.8	.8	100.0
Treasurer-manager	58.0	.0	.0	41.2	.8	100.0
Board of directors	67.3	.8	.0	31.1	.8	100.0
Hospitals	71.5	.8	.8	26.1	.8	100.0
Clinical services	84.1	.8	1.7	12.6	.8	100.0
Drug services	77.4	.0	.8	21.0	.8	100.0
Ambulance	63.0	.0	1.7	34.5	.8	100.0
Eye service	58.8	.0	2.5	37.9	.8	100.0

Source: Sample Survey, November–December 1943.

The doctors received proportionately more unfavorable replies, 5.1 percent, but they also received the greatest number of favorable replies, 91.6 percent. This is undoubtedly due to the fact that most of the families have had an opportunity to appraise the doctors and thus have definite opinions about them. As might be expected, nurses received the next highest number of favorable replies followed closely by the clinical services.

Although the replies were overwhelmingly favorable in respect to all services of the health association, careful scrutiny of the few unfavorable replies gives clues to the various problems associated with applying a modern health program in Taos County.

A few detailed notes taken during interviews with those few members giving unfavorable replies on doctor's services reveal many of the subtle influences affecting the program:

Interview was conducted with the wife since the head was not at home. The woman was sick in bed. Present also were a son and son-in-law. She said no meetings were held in El Prado to inform the people about the association. She liked the idea of having the various programs explained locally to the people. She said that Dr. ——— knew very little Spanish and that made it difficult for her to understand.

Mr. G. is very disgruntled over the first year's service even though his wife used the hospital 27 days during the year. He thinks the doctor should make home visits. He said he can never find anyone at clinic when he goes in; he has had to go to other doctors.

Interview was with the male family head. His wife is dead. He said he went to Questa Clinic and "they pay me no attention." This was, he said, the first visit to the doctor during his lifetime of 72 years. Mr. and Mrs. S. raised 13 children, all living today. Furthermore, he has 30 grandchildren and 3 great-grandchildren, all living. All live in Cerro, except one daughter with 7 children who lives in Chama, Colo., and one with 4 children who lives in Costilla. His mother is 93 years old and hears and sees well.

Interview was conducted with the wife. She said she was dissatisfied with the doctors because they could not cure her of her sickness. She is a chronic case and has been to other doctors.

Interview was made with the family head. He said that in September 1942 he was hurt by a horse and he went immediately to Taos Clinic. The doctor saw him and taped him up and told him it would take a long time to heal; and the doctor told him not to come back too soon. Later, an Indian medicine man visited him, saying he could cure him without money. The injured man said the medicine man cured him "by taking away the cramps in his stomach."

No unfavorable opinions were expressed in respect to the Mexican medical interns. Rather, those who knew them fairly beamed their satisfaction when they expressed their approval of them for they seemed to like their "language."

The unfavorable opinions of the clinic dentist were expressed in the following notes on interviews:

Interview was made with the wife. She said she went to clinic to get her teeth fixed and the dentist wasn't there. Had to go to Alamosa, Colo., to get her teeth fixed.

Interviewed the family head. He said, "Get a better dentist; the people say this."

The nurses received unfavorable reports in only one interview:

The head said, "Give better attention to members when they go to clinic."

Hospitals received only one definitely unfavorable reply, and clinical services came in for two unfavorable reports.

One unfavorable report on drug service simply stated that the drugs did her no good.

Cases reporting unfavorably on the ambulance service are as follows:

Interview was conducted with the wife. She said they felt that either the ambulance or doctor should come to the home. (Very isolated family.)

Interview was made with the wife. She said the head went over to Penasco Clinic to get to the hospital at Dixon and found that the nurse had left for Albuquerque. He never did get to the hospital and feels he did not get good service. (Very isolated family.)

Eye services were criticized in three cases as follows:

Family at Cerro had to go to Alamosa for two pairs of glasses for a daughter They were unable to secure service through the Questa Clinic. (Glasses were included during only a brief period.)

Unable to secure glasses through the clinic at Penasco; she went to a local optometrist.

Received no service at the clinic. Had to go to Alamosa to get glasses.

In summary, a total of only 13 interviews revealed one or more unfavorable reports. One other family refused to answer any of the

questions; which fact should be given some explanation because of the light it throws on community organization. A few days before interviewing was begun in Valdez, the wife of one of the members of the association had died from complications attending childbirth. She had been hospitalized but later the husband took her home against the best medical advice. Very soon thereafter the patient died. The solidarity of the community was amply demonstrated on this occasion when interviewing began, for the interviewers found it difficult to approach any of the family's neighbors and the family itself refused the interview. A most significant sidelight was the fact that although the village of Valdez was generally permeated with this antagonism to the association no evidence of such feeling was apparent in the adjoining village of Des Montes.

All but one of those interviewed expressed satisfaction with the membership fee for the first year but 24, or 20.1 percent, expressed dissatisfaction with the quota schedule for the second year. The first year's fee was calculated on the basis of 1 percent of the annual gross income up to an amount equal to $100 for each person in the family plus 3 percent of the family income in excess of $100 per person in the family. No family was permitted to pay less than the minimum fee of $1. During the second year the minimum fee was raised to $8.

At the time the interviews were made (November-December), only 62.2 percent had renewed their membership, 24.4 percent said they planned to renew, and 13.4 percent said they were not planning to renew. Of the 15 families who indicated that they were not renewing their membership for the second year, all but three expressed dissatisfaction with their new fee.

Dissatisfaction with the second year's fee was traceable, in large part, to a lack of information concerning the way the new fee was computed. In most instances this dissatisfaction was effectively removed by careful explanation and presentation of the facts.

An overwhelming majority, 70.6 percent, of the families interviewed favored a fee based on income but decreasing as size of family increases, which was the system used during the first year. However, 14.3 percent expressed preference for a schedule of fees based on income only, and 5 percent for a schedule which was the same for every family regardless of size of family or income. Five of those interviewed expressed a preference for a schedule based on income, but increasing as size of family increased, and three thought that payments should be according to the amount of use that the family makes of the services.

OPINIONS OF THE MEMBERS IN REGARD TO ADEQUACY OF CARE

More than three-fourths, 79.9 percent, of those interviewed felt that they received better health care during the first year in the association than before joining. Only one family reported poorer care and six reported equal care.

Notwithstanding the broad coverage of the association's health program, 31.1 percent of the families spent an average of $26.29 per family for outside services during the first year of membership (table 58). These families spent more than five times as much money, on the average, for services outside the association than in payment of their first year's membership fee, averaging $4.63 per family.

TABLE 58.—*Services received outside the association by member families of the Taos County health association, Oct. 1, 1942, to Sept. 30, 1943*

	Families reporting	Total cost	Average cost per family
Medical doctor	17	$458.50	$26.97
Medicine man	2	3.00	1.50
Drugs and medicine	19	102.50	5.39
Midwife	5	48.00	9.60
Dentist	4	41.00	10.25
Hospital	2	156.12	78.06
Other	10	163.55	16.36
All services	37	972.67	26.29

Source: Sample survey, November-December 1943.

These data suggest that a number of families might have contributed more to the association plan during the first year of operation without undue effort if all services had been provided by the association.

Habit and custom play a great part in determining the pattern of medical care in any community. Five families paid for midwife services at childbirth even though assured of hospital care under the association program. In addition, two families called in medicine men for sickness. The solution to the problem, therefore, is not one of merely making adequate care available; it also involves overcoming the forces of habit and custom.

OPINIONS OF NONMEMBERS IN REGARD TO THE ASSOCIATION

Many informal contacts were made with persons not connected with the health association. Generally speaking, information about the functioning of the association is lacking but nonmembers reflect an opinion that it is a good thing for the people of Taos County and is making the people more health conscious. Criticism is often directed against the large governmental subsidy and the fact that the association has taken over most of the available medical personnel in the county. Before the war, Taos County had five doctors; now there are but three. Two of the remaining physicians are on the staff of the health association, leaving only one full-time physician for nonmembers, who comprise 62 percent of the total population of Taos County. Nonmembers are hard put, therefore, to obtain medical care as a result of the association program and the loss of two physicians due to the war. But a considerable number of nonmembers make use of the health center, amounting to 8.1 percent of all the visits made to clinic doctor and 16.1 percent of the nursing services.

CHAPTER XVIII. INTERPRETATION AND APPRAISAL

GENERAL

Association members, physicians, dentists, nurses, and other employees, hospital staff personnel, and local druggists generally agreed that the Taos County Cooperative Health Association was a good thing for the people of Taos County and that during the first year it was successful in providing more adequate health care to a larger percentage of persons than had been provided with care before. (The only major opposition has come from one Taos physician.) This has been accomplished in the face of war conditions which have presented many problems of administration that might not be expected in more normal times.

It must be acknowledged that the association covered only 38 percent of the total population of Taos County and, therefore, did not improve the health service for the entire county. Conversely, the remainder of the population has been cut off from the services of medical personnel previously available to them. The health center plan has partly compensated for this in spreading the services.

A number of reasons are given for the lack of more complete coverage:

(1) The voluntary nature of the plan places a great reliance on educational processes for bringing in members, and this requires time.

(2) The board of directors has felt compelled to limit membership to a maximum so that fair standards of medical care can be maintained.

(3) A fairly large segment of the population, perhaps 15 percent, is ineligible for membership on the basis of too high incomes and the fact that it cannot qualify under the occupational requirement.

(4) A number of persons are unable to pay the minimum membership fee.

SALIENT FEATURES

(1) The association was organized along cooperative lines, involving a pooling of risks and resources, to provide better health care to those covered.

(2) Costs to member families were on a prepayment plan, with the amount of fee based on net annual income of the family but decreasing as the size of family increases.

(3) Membership fees were supplemented by a grant from the Farm Security Administration, United States Department of Agriculture.

(4) The organization was built around strategically located health centers with a full-time nurse in charge of each center. Clinic nurses made home visits.

(5) Services of a clinic physician were available on a regular schedule at each health center. No home visits were made by the clinic doctor except in extreme cases.

(6) Services of a clinic dentist were available on a regular schedule at each health center during part of the year, and dental care on referral was available during the entire year.

(7) All personnel, including physicians and dentist, were on a salary.

(8) During the first year the cooperative health association provided (1) medical care, (2) dental care, (3) eye service, (4) specialist service, (5) hospitalization, and (6) drugs.

(9) The association provided ambulance service to clinics and the hospitals.

SOCIOLOGICAL FACTORS INVOLVED

The successes or failures of the Taos County cooperative health association can be explained only in relation to the culture in which it has functioned.

The Taos plan, with features running counter to traditional patterns of medical care, seemingly has met little resistance in the county. Many of the social factors which might prevent the organization of a health association in other counties of the United States are inoperative in Taos County. Word symbols that bulk large as elements of social control in the greater society carry little or no weight in the folk society of Taos. Thus, words such as "socialized medicine," "free choice," "communism," "bureaucracy," etc., are rendered ineffective in Taos County. Geographic and cultural isolation contributes much to this situation.

This consideration becomes highly important when any plan for extending such a program is contemplated. Such a plan will be likely to succeed only in areas where sufficient incentive is given for both rural people and physicians to modify and change their traditional beliefs and concepts in regard to rural medical care.

The cultural configuration is influential in determining how the members of the health association will react as recipients of services and as participants in a cooperative organization.

Although cultural lag and cultural differences must be recognized in appraising the functioning of the health program they must not be overweighed as barriers to more adequate provision of modern medical care. This is shown rather conclusively by the general acceptance of all phases of the health program and apparently demonstrates that, given an opportunity to substitute modern medical care for that of the tribal witch doctor and medicine man, the people of Taos County will respond quickly to modern medicine.

It is only natural that the Taosenos would carry over a strictly utilitarian concept of medicine; that is, when one of them gets sick he expects to be cured. Much patient education will be required to achieve a recognition of the place of preventive medicine in the health of the county.

Government, to the Taoseno, is no giant ogre waiting to devour the individual but rather is thought of as a beneficent protector. Government assistance in the financing and developing of such a program is accepted as natural. In response to the question, "How much of the cost of the health association program should have been paid by the Federal Government?" the most usual answer was, "Half and half." In no case did the respondent show any antipathy toward the inclusion of the Government as a partner in financing the health program.

In view of the hierarchical form of social organization which predominates in the villages it is not surprising that 95 percent of the families felt perfectly free to make suggestions but only 8 percent actually made them. The customary functional pattern is through recognized local leaders. A person living in one of the isolated villages might not express himself to a director or the treasurer-manager whereas he would readily unburden himself to a village leader—the priest or another leading citizen. More recognition of this fact might be given in the organizational set-up, thus providing for more face-to-face contacts and local methods of control.

STEPS IN ORGANIZING THE TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION

(1) The people of Taos County were brought to realize the need for better health care through demonstration, experience, and discussion. The early unincorporated Farm Security Administration medical cooperative effectively demonstrated an approach which might be made and focused attention on the health problem. Public discussion and education, sponsored by the Taos County project which was financed by the Carnegie Foundation, set in motion a planning process which culminated in the present incorporated association. At least 18 months were consumed in this phase of development.

(2) Various courses of action were considered and an approach decided upon by laymen and professional leaders. Careful consideration was given to (*a*) the type of plan, (*b*) the rates to be charged, (*c*) the scope of services to be offered, and (*d*) the possible sources of financial support. This phase required approximately 12 months.

(3) Actually putting the plan into operation involved the solicitation of members, the working out of agreements with the professional people, and disposing of myriad details of administration. It took most of the first year of operation to create a smoothly functioning organization.

(4) Constant checking and appraisal were necessary to improve the standards and scope of service. This testing process has gradually been improved as the program developed. Constant improvement in records has been achieved. This step is a continuing one.

LEADERSHIP

The important role of purposeful leadership in the development of the Taos plan has been effectively demonstrated. Vertical leadership, functioning at local, State, and national levels, established the necessary links between the locality and the greater society; the horizontal leadership, functioning within specific fields of interest and a division of labor, laid the ground work for the plan of operations.

One of the key individuals in the development of the health program was the treasurer-manager. He gave constant attention to the program from its inception and thus contributed the necessary continuity in leadership. He was able to negotiate successfully between professional people, Government representatives, and laymen. Finally, he was a capable adviser in matters pertaining to financing.

GUIDING PRINCIPLES

(1) The association was democratically controlled. Each member was allowed one vote in all elections and on all questions.

(2) Membership was open to the extent that all rural families receiving $1,200 or less net annual income were eligible for membership.

(3) Membership was composed of members who voluntarily joined the association.

SCHEME OF ORGANIZATION

The health service area and health center plan of organization has shown its practicability in Taos County, making modern medical service available to increased numbers of rural people with relative economies in money and time of professional personnel. Experience in Taos County has indicated that the service area should not extend much beyond 15 miles from the health center. However, it must be borne in mind that communication and transportation facilities are below average in the county.

The association at first lacked a modus operandi for discharging its broad health education responsibilities. The following steps were taken as one way of setting a broad adult education process into motion:

(1) Delineate the county into its various communities and group them into clinic areas.

(2) Develop an understanding of the social situation in each community.

(3) Select temporary leaders, one from each community.

(4) Invite community leaders to a discussion meeting at the health center.

(5) Talk individually to leaders.

(6) Each community leader arranges for discussion groups in his community.

(7) Each community organizes its own committee to carry on a health education program.

The association sponsored a monthly news letter or bulletin to keep the members informed. Motion pictures dealing with health problems were added. This required the release of the treasurer-manager from the detailed office routine for the more essential education activities. The association employed one full-time field worker who knows the customs of the people and can organize membership campaigns.

Agricultural Extension Service, the public schools, and the churches were drawn into the educational program. It is unfortunate that Taos County has no home-demonstration clubs. Lack of such local groups was overcome by stimulating discussion groups through the schools and churches. Father Garcia at Ranchos de Taos sponsored local discussion among Catholic families which has resulted in the establishment of a local clinic.

ADEQUACY OF THE SERVICE

The adequacy of the association's health program can be brought into better perspective by comparing its personnel, services, and costs

with a comparable urban plan (table 59). The Southern Plan, summarized in this table, covered approximately the same number of persons as the Taos Plan and provided a basis for directly comparing similar services.

TABLE 59.—*Comparison of personnel, services, and costs of Taos County health association plan, 1942–43, and a comparable plan in a southern city of about 100,000 population, 1940–41*

	Southern Plan [1]	Taos Plan [2]
Personnel:		
Physicians	10	4
Dentists	0	1
Registered nurses (clinic)	12	4
Laboratory technicians	2	0
X-ray technicians	2	0
Registered nurses (hospital)	15	10
Services:		
Number of clinic calls	31,931	8,276
Clinic calls at which one or more physicians were seen	24,502	6,776
Clinic calls at which only a nurse or laboratory technician were present	7,429	1,500
Number of days of hospitalization	4,895	2,759
Number of home calls	913	537
Costs: Average annual payment per person	$19.00	$7.50

[1] Barkev S. Sanders and Margaret C. Klem, Services and Costs in Prepayment Medical Care Plan, Medical Care, July 1942, pp. 215–223. This article describes a plan serving more than 5,000 persons living in a southern city of about 100,000 population.

[2] The Taos plan included limited dental service, eye service, and ambulance service, none of which were included in the southern plan

The Southern Plan surpassed the Taos Plan in number of physicians, registered nurses at clinic and hospital, and laboratory and X-ray technicians but the Taos Plan included a dentist whereas the Southern Plan did not. The rates of clinic calls and hospitalization were much greater in the Southern Plan than in the Taos Plan but the average cost per person was two and a half times as great in the Southern Plan as in the Taos Plan.

EFFECTS OF THE PROGRAM

Although insufficient time has elapsed to draw sweeping conclusions as to the effect of the program on the health habits of the people it appears that more mothers are now receiving prenatal and postnatal care, and better medical care and more hospitalization at childbirth. Patients are going to a doctor oftener and earlier, and are making more use of hospital facilities. Many families reported an increased feeling of security stemming from the knowledge that medical aid was more accessible; this is particularly true in the outlying villages.

It is generally agreed, too that the association has awakened a greater interest in health. This situation has indirectly redounded to the benefit of local drug stores but at the same time the association has gone into direct competition with them. Drug-store operators at Taos feel that the association should confine its drug business to Penasco and Questa communities that are without drug stores.

Increased use of hospital facilities under the association's program has placed a greater burden upon them but has no doubt increased their revenues. The Thomas P. Martin Hospital has changed a long-standing policy of not admitting persons from the general population and thus more hospital facilities are now available than ever before.

Competition among the three local hospitals has increased with a beneficial effect on the standards of hospital care.

Families living in Rio Arriba and Mora Counties to the south and west, and Costilla County, Colo., to the north have approached officials of the Taos County Cooperative Health Association asking to be included in the health plan. In some instances the adjoining counties are considering an independently incorporated plan of their own.

PROBLEMS

The most important question being asked about the Taos Plan is: "Can the program be made self-supporting?" Under the first year's plan of financing it would not be able to make the program self-supporting as none of the members paid more than the average cost. If it were permissible to solicit and receive members from the higher income groups the program might conceivably become self-supporting. However, criticism by the medical profession was immediately sharpened when the association attempted to do just this for the second year of operation by raising the maximum annual income from $1,200 to $1,800. But unless the membership base is broadened to include high- as well as low-income families, the Taos Plan cannot become self-supporting.

The fee during the first year was based on both net income and size of family. The rate was directly proportional to income and inversely proportional to size of family. Such a schedule has the disadvantage of being somewhat complicated but has the advantage of taking into account a social factor of family size and its relation to ability of the family to pay medical expenses. But use of so complicated a schedule system is hardly necessary to arrive at a reasonable and fair fee, particularly since the membership is composed of families whose net annual incomes fall below $1,200, and more than three-fourths of them below $500. (The mean average net annual income was $354 for the first year, with a standard deviation of $200). The accuracy of figures on income given on the application is a moot question, but becomes of minor consequence when compared with the wider range of incomes in rural and, especially, urban United States.

PART III. DOCUMENTS

It was thought advisable to include a few of the important documents for use of any group of people looking forward to developing their own health association. Often it is the detail of such an effort rather than the general over-all plan that bewilders rural people. In order that health associations can be made a little more concrete to the reader, there is also included a description of highlights in the development of one of the health associations.

A. Charter of incorporation.
B. Bylaws.
C. Application for membership.
D. Membership card.
E. Member's ledger sheet.
F. Statement of account of physician's services.
G. Statement of account for dental services.
H. Statement of prescriptions (prescription form).
I. Statement of account of hospital services.
J. Highlights in developing a health association.

[Copy]

THE CHARTER OF INCORPORATION OF THE NEWTON COUNTY RURAL HEALTH SERVICES ASSOCIATION, INC.

1. The corporate title of said association is the Newton County Rural Health Services Association, Inc.
2. The names of the incorporators are:
   H. L. Laird, post office, Union, Miss.
   Mrs. J. C. Hollingsworth, post office, Decatur, Miss.
   Mrs. T. B. Johnson, post office, Decatur, Miss.
   F. E. Starnes, post office, Chunky, Miss.
   George Langford, post office, Coushatta, Miss.
   Stanley Henderson, post office, Decatur, Miss.
   Jodie Bradford, post office, Newton, Miss.
   Claude Brantley, post office, Lawrence, Miss.
   A. L. Matthews, post office, Union, Miss.
3. The domicile of this association is at Decatur, Miss.
4. Amount of capital stock and particulars as to class or classes thereof: There is to be no capital stock or classes of membership certificates. Families engaged in agricultural pursuits as a means of a livelihood shall comprise the membership and each farm family qualifying hereunder shall be entitled to participate in the services herein provided.
5. Number of shares for each class and par value thereof: Each farm family shall be entitled to one membership in the association and allowed one vote in the control and management thereof upon the payment of $5 or 6 percent of the net cash income as determined by the board of directors, based on the family's previous year's earnings, whichever is greater. Participation memberships in the association subsequent to organization shall be computed upon the same basis. Memberships shall be evidenced by a membership card as provided in the bylaws. There shall be no commissions paid for securing memberships or the solicitation thereof. The funds coming into the association shall be managed and controlled as provided in the bylaws. There shall be no voting by proxy.
6. The period of existence is 3 years.
7. The objects and purposes for which this association is formed are (1) to bring together people engaged in agricultural pursuits as a means of livelihood

for the purpose of discussing various methods of farming, farm implements used, different breeds of stock raised, and to educate its members in this way in the pursuits of agriculture that the condition of the agriculturist may be improved by knowledge of the best methods of farming, the best machinery, the best breeds of stock, etc.; (2) to promote and improve the general health, welfare, and living conditions of its members, to increase the efficiency and further the rehabilitation of its members, and to that end, to engage in any activity not inconsistent with the laws of the State of Mississippi involving or relating to securing for its members medical, surgical, dental, drugs, nursing, ambulance, or related services incident, necessary, or convenient thereto and to secure a proper and equitable distribution of these services to its members throughout Newton County; and (3) to associate its members together for their mutual benefit and not for profit as an agricultural association with full power and authority to do each and everything necessary, suitable, or proper for the accomplishment of any of the purposes or attainment of any one of the objectives herein enumerated or conducive to or expedient for the interest or benefits of the members of the association in the operation or management thereof. The association may accept aid, grants, gifts, or donations from Federal or State governmental agencies or other sources.

The affairs of the association shall be conducted by a board of nine directors to be selected one from each of the nine districts of the county in the manner as provided in the bylaws.

Said association shall not publish its charter, issue shares of stock, or divide dividends among its members. It shall operate upon a nonshare and nonprofit basis without individual liability against the members for corporate debts. The corporate property shall be liable for the claims of creditors.

The association shall have a representative form of government. Each member shall have the right of one vote and to participate in the election of all officers. Expulsion shall be the only remedy for nonpayment of dues. The loss of membership by death or otherwise shall terminate all interest of the members in the corporate assets; provided, however, that no services shall be denied the family of a deceased member for the year in which the dues of said member have been paid, if said family remains engaged in agricultural pursuits.

The association shall not guarantee to furnish any medical, dental, drug, nursing, ambulance, or related services, or that any physician, surgeon, dentist, or druggist will render or perform such services; nor shall the association undertake or guarantee to pay anything as compensation or reimbursement for any loss sustained by its members.

The articles of association may be amended as provided by law. The bylaws may be amended as provided in the bylaws.

The rights and powers to be exercised by this association, in addition to the foregoing, are those contained in the bylaws and those conferred by chapter 100, Code of Mississippi 1930, and amendments thereto.

8. Number of shares of each class to be subscribed and paid for before the association may begin business—none.

(Signed) H. L. Laird, Mrs. T. B. Johnston, F. E. Starnes, Mrs. J. C. Hollingsworth, Geo. Langford, Stanley Henderson, Jodie Bradford, Claude Brantley, A. L. Matthews, *Incorporators.*

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Bylaws of Newton County Rural Health Services Association, Inc.

ARTICLE I. NAME AND LOCATION

Section 1. The name of this association is Newton County Rural Health Services Association, Inc.

Section 2. The principal office of this association shall be located at Decatur, in the county of Newton, State of Mississippi.

ARTICLE II. FISCAL YEAR

Section 1. The fiscal year of the association shall begin on the first day of July of each year.

ARTICLE III. SEAL

Section 1. The seal of this association shall have inscribed thereon its name, the year of its organization, and the word "Mississippi," and shall be in the exclusive custody of the secretary.

ARTICLE IV. PURPOSES

SECTION 1. The purposes of this association are:

1. To increase the knowledge of its members in agricultural pursuits.
2. To improve the health, increase the efficiency, and promote the well-being of its members by securing medical, surgical, dental, drugs, nursing, ambulance, and related services; and
3. To associate its members together for their mutual benefit and not for profit for the attainment of any of the objectives enumerated in its charter.

ARTICLE V. MEMBERSHIP

SECTION 1. Only persons who are engaged in agricultural pursuits and who reside in Newton County and who are approved for membership by the board of directors, shall become members of this association. Membership shall be on an annual basis. Whenever used herein, the masculine pronoun shall refer to and include the feminine.

SECTION 2. One, but not more than one, member of each family residing in Newton County, Mississippi, may become a member of this association and all members of the family residing with the member and substantially dependent upon the member for support shall be entitled to participation rights in the association, provided said member or members are engaged in agricultural pursuits, are not heads of separate families, and have no other source of majorin come.

SECTION 3. Parents or other relatives living with the member and receiving incomes such as pensions, compensation, alimony or other outside incomes constituting a major source of support and rendering the parents or other relatives not substantially dependent upon the member, may become a member of the association on application approved by the board of directors and payment of the regular membership fee.

SECTION 4. *Application for membership.*—Application for membership shall be made on a blank to be prescribed by the board of directors and must be filed with the secretary together with the membership fee of $5 or an amount equal to 6 percent of the applicant's net cash income during the preceding year, whichever is greater. In applying for membership, the applicant will agree to abide by the regulations, rules, and bylaws of the association. Membership shall be evidenced by a membership card reciting, among other things, applicant's agreement to be bound by the rules, regulations, and bylaws of the association. If the application is rejected for any cause, the membership fee will be returned to the applicant. Immediately upon the issuance of a membership card, the secretary shall enter the name of the new member upon the books of the association and shall present him with a copy of the rules and regulations governing the operations of the association.

SECTION 5. *Records of members.*—The secretary shall keep a record of all the members of the association, which shall include the full name, address, age, and occupation of each member of the member's family at the time of admission into the association. Each member shall notify the secretary immediately of any change in address or status of any member of his or her family.

SECTION 6. *Withdrawal of a member.*—Any member desiring to withdraw from the association may do so by surrendering to the secretary his membership card, which shall thereupon be canceled, and the name of the member shall be stricken from the membership rolls of the association. In the event a withdrawing member has lost his membership card, his name may be stricken from the membership rolls notwithstanding his failure to surrender his card.

SECTION 7. *Expulsion of a member.*—Any member who fails to cooperate in the purposes and objects of the association, or who acts contrary to the best interests of the association may be expelled by the board of directors, provided that such member is given written notice by the board of directors of the charges and an opportunity to appear in his own defense before the board of directors at its next regular or special meeting. Any member shall have the right of appeal from the decision of the board of directors to the association at its next regular meeting following the action taken by the board of directors or by a special meeting of the association duly called for that purpose. In case of appeal to the association by a member the action of the association shall be final.

SECTION 8. *Suspension of services.*—A member and his family shall not be entitled to services provided by the association after being notified in writing by the board of directors of his expulsion until or unless he is reinstated by the board of directors or by the association.

SECTION 9. *Termination or transfer of a member.*—In the event of the death or adjudication as an incompetent of any member of the association, the member's

family may continue to receive the services herein provided to which the deceased or incompetent member and family would have otherwise been entitled for the remainder of the period of his or her membership.

The board of directors may upon proper and legal application refund to the legal or personal representative any moneys which the deceased or incompetent member may have paid to the association which are unused as of the date of the death or incompetency or of the date of desired cancellation of membership.

The board of directors may transfer the membership of the deceased or incompetent member to a surviving spouse or to a member of his or her family, as the case may be, in order to continue the services herein provided. In the event the board of directors refunds the unearned portion of the membership of the deceased or incompetent member, or does not transfer the membership as above provided, then it shall be the duty of the board to cause to be canceled the membership of the deceased or incompetent member.

Removal from the county by a member and his family or a willful failure to cooperate in the program shall automatically be cause for immediate termination of membership in the association.

Section 10. *Payment of refunds to withdrawing, expelled or otherwise terminated members.*—If a member voluntarily withdraws, is expelled, or is terminated by reason of death, incompetency, or for any other reason, the board of directors shall, as soon as possible after the close of the fiscal year, determine the amount due the member and such amount shall be paid to such member or his or her legal or personal representative.

Section 11. *Transfer of membership.*—No certificate of membership shall be assignable or transferable otherwise than as above provided, and every certificate issued shall bear on its face the words "Not transferable except in accordance with the provisions of section 9 of this article."

Section 12. *Duties and functions of members.*—The duties and functions of the members are (a) to assist in the furtherance of the program by understanding and supporting its objectives, aims, and purposes, (b) to take an active part in the association's affairs by attending the meetings of the association and by discussion and voting to provide a basis for the determination of policies by the board, (c) to participate in the formulation of and to abide by the rules and regulations and bylaws, (d) to cooperate with and encourage cooperation of all members, (e) to care for any property or goods which may be assigned or entrusted to him for the use of the association, (f) to contribute his services if elected or appointed on the board of directors or any committee or committees which may be appointed by the board, and to do any other reasonable things which may make for success of the association's program.

ARTICLE VI. MEETINGS

Section 1. *Regular membership meetings.*—The control of the association shall be vested in the membership. Regular membership meetings of the association shall be held annually in the month of July, between July 1 and 15, at such time and place as may be determined by the board of directors and specified in the call to meeting. Notice of such meeting shall be given by the secretary of the association by mailing or delivering written notice to each member of record at his address as it appears upon the records of the association at least 5 days prior to the date of such meeting. Such notice shall state the time and place of such meeting.

Section 2. *Special membership meetings.*—Special meetings of the members may be called at any time by action of the board of directors, and such meetings must be called whenever a petition for such meeting is signed by at least twenty-five (25) members and presented to the secretary or to the board of directors.

Notice of such meeting, containing a statement of the purposes thereof, shall be given by the secretary of the association by mailing or delivering written notice thereof to each member of record at the address as it appears upon the records of the association at least five (5) days prior to the date of such meeting. Such notice shall state the time and place of such meeting and the business to come before it. No business shall be transacted at any special meeting other than that specified in the notice of such meeting.

Section 3. *Quorum.*—Twenty-five (25) members of the association shall constitute a quorum for the transaction of business and no business shall be transacted unless such quorum is present when a vote is taken. If, however, such quorum shall not be present at any regular or special meeting, a majority of the members present shall have power to adjourn the meeting from time to time without notice other than announcement at the meeting until a quorum shall be present. At such adjourned meeting at which a quorum shall be present, any

business may be transacted which might have been transacted at the meeting as originally called.

SECTION 4. *Order of business.*—All meetings of the association shall be governed by Robert's Rules of Order (Revised). The order of business at all membership meetings shall include as far as applicable:

1. Roll call.
2. Proof of due notice and determination of quorum.
3. Reading and disposal of any unapproved minutes.
4. Nominations for vacancies on the board of directors.
5. Report of board of directors by president or vice president.
6. Report of secretary.
7. Report of treasurer.
8. Report of general manager.
9. Report of committee.
10. Unfinished business.
11. New business.
12. Elections.
13. Adjournment.

SECTION 5. *Voting rights.*—Each member shall have one vote and one vote only on all occasions, and there shall be no voting by proxy or by mail, except, however, amendments to the articles of association or the bylaws may be voted upon by the members by mail and the results thereof filed with the secretary of the association to become part of the permanent records thereof. Voting on other matters shall be by show of hands unless the majority of the members present at the meeting shall decide to vote by ballot.

ARTICLE VII. DIRECTORS

SECTION 1. *Functions of the board of directors.*—The business of the association shall be directed by a board of directors composed of 9 members who shall be residents of Newton County, Mississippi. Its functions shall include the (a) selection of, and delegation of authority to, management; (b) determination of policies for guidance of management; (c) control of expenditures by authorizing budgets; (d) keeping of members fully informed on the business of the association; (e) causing audits to be made at least once each year or oftener, and reports thereof to be made directly to the boards; (f) studying the requirements of members and promoting good membership relations; (g) prescribing the form of membership applications and certificates and contracts or agreements between the association and physicians, dentists, nurses, druggists, ambulance companies, or others who may have occasion to contract or do business with the association; and (h) doing such other things as may be necessary to successfully promote, defend, and conduct the affairs of the association.

SECTION 2. *Election and term of board members.*—The first board of directors, consisting of those elected at the first meeting of the incorporators of the association, shall serve until the first annual meeting of the members or until their successors are chosen and have qualified. A member shall be elected from each of the nine districts of Newton County, Mississippi, the boundaries and limits of said districts to be approved by the members at their first meeting, and to continue until otherwise changed. At the first annual meeting, three directors shall be elected for a term of one year, three for a term of two years, and three for a term of three years. Thereafter, at each regular annual meeting, the members shall elect for a term of three years the number of directors whose terms of office expire at that time. Directors shall be elected by a written ballot at the meeting and shall be elected from the districts wherein they reside.

SECTION 3. *Election of officers.*—Within ten (10) days after such annual meeting of the members, the board of directors shall elect from their own number a president, vice president, and a secretary-treasurer. The term of office of each officer shall be for one year or until his successor is elected and qualified. In addition to the officers herein provided, the board of directors shall contract for the services of a manager and shall prescribe his duties, fix his compensation, and determine the terms and conditions of his employment. The manager may not be a member of the board. The board shall have the right to appoint and remove officers, attorneys, and employees whenever it may deem necessary.

SECTION 4. *Disqualification of officers or directors.*—A director or officer, shall vacate his office, if, during the term of office, he shall be a party to a contract for profit with the association differing in any way from the business relations accorded members of the association, or if he competes in any way with the business of the association on his private account.

SECTION 5. *Meetings of the board of directors.*—Regular meetings of the board of directors shall be held at such time and place and at such regular intervals, not exceeding one month, as may be prescribed by resolution adopted from time to time by the board of directors. Special meetings of the board may be called by the president, or by the vice president if the president is unable or neglects or refuses to call a meeting when requested by other members of the board. Should both the president and the vice president be unable or neglect or refuse to call a meeting of the board, any three members of the board may call such meeting. Notice of all regular and special meetings of the board shall be given to each director by the secretary of the association by mailing or delivering a written notice thereof at his or her last known post-office address at least three days prior to the date fixed for such meeting, setting forth the time, place, and purpose of the meeting. Five directors shall constitute a quorum for a meeting of the board. At any meeting at which every member of the board shall be present, although held without notice, any business may be transacted which might have been transacted if notice of such meeting had been duly given. Notice of meetings may be waived when signed by all the directors.

SECTION 6. *Powers of the board.*—The board of directors shall have general power to act for the association in any manner not prescribed by statute, by the articles of incorporation, or by the bylaws in the direction of the affairs of the association. If the association shall at any time borrow or receive by way of grant any property from the United States, through any of the agencies of the United States, the board of directors shall adopt and pursue such control and accounting methods and cause such audits to be made as shall be prescribed by such agency.

SECTION 7. *Committees.*—The board of directors may, by proper resolution, designate one or more committees which shall function an an advisory capacity to the board as to general policy and conduct of the association, but such committees so chosen shall not exercise any of the powers and duties of the board. The board may also appoint any other committee within the membership as it may deem necessary to carry out the aims and objectives of the association.

SECTION 8. *Vacancies on the board.*—If the office of any director becomes vacant by reason of death, resignation, retirement, disqualification, or otherwise except by removal from office, a majority of the remaining directors shall choose a successor from the district wherein the office of the member becomes vacant, who shall hold office until the next regular meeting of the association, at which time the members shall elect a successor to fill the unexpired term or terms, provided that in the call for the meeting, a notice of such election shall be given.

SECTION 9. *Removal of directors and officers.*—Any director or officer may be removed from office in the following manner: Any member may bring charges against any director or officer by filing them in writing with the secretary of the association, together with a petition signed by ten percent (10%) of the members, or by written charges and petition signed and filed by six (6) members of the board of directors requesting the removal of the officer or officers or director or directors in question. Such removal shall be voted upon at the next regular or special meeting of the members and shall be effective if approved by a vote of a majority of the members present at such meeting. The director or officer against whom such charges have been brought shall be informed in writing of such charges five days prior to the meeting and shall have the opportunity at such meeting to be heard in person or by counsel and to present witnesses; and the person or persons bringing such charges against him shall have the same opportunity. If the removal of a director is approved, such action shall also vacate any other office held by the removed director in the association. A vacancy on the board thus created shall be filled by a majority vote of the remaining directors as provided in section 8 of this article. The board may then fill any other vacancy caused by removal, resignation, or otherwise of any officer or director or committeemen of the association.

SECTION 10. *Compensation of directors and officers.*—The directors, the president, vice president, and secretary-treasurer shall serve without compensation. The members of the board of directors may be reimbursed for expenses actually incurred in traveling to and from regular or special meetings of the board, provided (1) not more than one regular and one special meeting are held by the board during any one calendar month, and (2) such reimbursements do not exceed the rates charged for transportation by common carrier for similar distances in the county.

ARTICLE VIII. OFFICERS

SECTION 1. *Duties of the president.*—The president shall preside at all meetings of the members and of the board of directors, shall execute notes, bonds, mortgages,

contracts, and all other instruments on behalf of the association, shall be ex-officio a member of all standing committees, and shall have such powers and perform such other duties as may be properly required of him by the board of directors.

SECTION 2. *Duties of the vice president.*—The vice president shall, in the absence or disability of the president, or in the event of death, resignation, or removal from office, perform the duties and exercise the powers of the president, and shall have such other powers and perform such other duties as the board of directors shall prescribe.

SECTION 3. *Duties of the secretary-treasurer.*—The secretary-treasurer shall keep and maintain a complete record of all the meetings of the association and of the board of directors, shall have custody of the corporate seal and shall affix the same on such papers and documents as may be required in the conduct of the business, shall keep the membership records, countersign all checks, and with the president sign such other papers and documents pertaining to the business affairs of the association as may be authorized or required of the office of secretary-treasurer, and shall furnish bond as required in section 6 of this article. In the event the secretary-treasurer shall be unable, refuse, or neglect to perform the duties of his office as herein provided, then the board of directors may designate one of their own number or an officer of the association to take over and perform such duties as herein required and shall perform such other duties as may be required of his office.

SECTION 4. *Duties of the manager.*—The duties of the manager shall be: (*a*) to manage the association's business in accordance with the instructions and under the supervision of the board of directors; (*b*) with the approval of the board, engage and discharge employees; (*c*) keep accurate books of the business transacted and submit the same, together with all other information pertaining thereto, for inspection by the board of directors, commissioner of insurance, or auditors appointed to audit the books and affairs of the association; (*d*) aid and advise the board in the preparation of budgets, furnish monthly a statement showing the condition of the association's business, and when required, submit reports of his management to the regular annual meeting of the membership; (*e*) assist and advise the board in formulating policies relative to the conduct of the association's business; (*f*) perform all clerical duties required by the board of directors, receive and deposit funds for the association and draw checks upon its account, which shall be countersigned by the treasurer, in payment of bills, salaries, or other expenses ordered paid by the board of directors, and furnish a corporate surety bond in adequate amount conditioned upon the faithful performance of the duties of his office, and proper accounting for all funds and properties of the association.

SECTION 5. *Absence of officers.*—In case of the absence or ability of any officer or officers of the association to act, or any person herein authorized to act in his place, the board of directors may, from time to time, delegate, for the time being, the powers or duties or any of them of such officer or any other officer or to any director or employee.

SECTION 6. *Bonds.*—The secretary-treasurer, manager, or any other officer or employee, receiving funds or property, having the custody or control of funds or property, or the disbursement thereof, belonging to the association, shall each give or execute a corporate surety bond in favor of the association in such amount and containing such stipulations and conditions as may be required by the board of directors. The premium costs of said bonds shall be paid by the association.

ARTICLE IX. MEDICAL CARE

SECTION 1. *Eligibility for medical care.*—Subject to the provisions of section 3 of article VIII of these bylaws, each member and his family shall be entitled to receive medical care and other benefits provided by the association. The word "family"as used in those bylaws shall include all persons residing with the member substantially dependent upon the member for support. Members of the association and their respective families shall be eligible for medical care only after applying therefor on the form prescribed by the board of directors. A membership card shall be issued to each member approved by the board of directors.

SECTION 2. *Membership cards.*—Each membership card shall be countersigned by the member to whom it is issued and shall be in such form as may be prescribed by the board of directors, provided that it shall set forth, among other things, the name and address of the member and of each member of his family who is eligible for medical care, the period for which such member and his family are to receive such care, and shall bear on its face the following statement, or statements, substantially similar thereto.

a. "This membership card is issued and accepted subject to the provisions contained in the articles of incorporation, bylaws, and the rules and regula-

tions adopted and to be promulgated by the board of directors of the Newton County Rural Health Services Association, Inc."

b. "This membership card may not be transferred or assigned or otherwise disposed of. To cause or permit the fraudulent use of this membership card or to divert the benefits therein provided to a nonmember shall automatically suspend the member and his family from any further services provided by the association."

SECTION 3. *Medical care not guaranteed.*—(*a*) This association does not guarantee that any physician, surgeon, dentist, or druggist with whom it may enter into agreement to render services to its members and their respective families, will perform such services, and its only obligation in the event of a breach of such agreement by any physician, surgeon, dentist, or druggist shall be to use its best efforts to obtain the needed services from another source.

(*b*) The association shall not be liable for any act of omission or commission on the part of any physician, surgeon, dentist, or druggist or any other person with whom it may enter into agreement to render services to its members and their respective families.

ARTICLE X. REPORTS AND AUDITS

SECTION 1. *Reports of business to be made by board of directors.*—The board of directors shall present at each annual meeting, and when called for by vote of the members at any special meeting of the members, a full and clear statement of the business and condition of the association.

SECTION 2. *Annual audit to be made, contents thereof.*—At the close of each fiscal year the board of directors shall provide for an annual audit of the accounts of the association by a public accountant having no connection with the association, the audit to be conducted in accordance with generally accepted auditing procedure. This audit shall include narrative statements of services rendered by the association, the balance sheet, profit and loss statements, members admitted and withdrawn, total number of members, and other pertinent information, and it shall be submitted in written form to the members at the annual meeting in July or as soon thereafter as practicable. The board may provide such other audits as shall be desirable in the best interests of the association.

ARTICLE XI. DISTRIBUTION OF FUNDS

SECTION 1. At the end of the fiscal year, after all claims against the association have been settled in full, any unused balance remaining in the treasury shall be handled in one of the following manners, upon the decision of the board of directors and approval of the appropriate agency of the United States Department of Agriculture.

(1) Such sum may be added to the succeeding year's allotment and used to supply additional services to those who are members at the end of the fiscal year.

(2) Or such sum may be prorated back to the members, the United States of America, and/or private donors in proportion to the amounts paid in by each respectively.

SECTION 2. *Dissolution of the association.*—In the event it is determined by the members of the association to dissolve said association all members shall be treated as one class and the following procedure shall be followed: (1) Assets other than cash shall be liquidated, (2) all liabilities of the association paid, and (3) any remaining sums shall be distributed among the members as of the time of dissolution, the United States of America, and private donors in proportion to the amounts paid in by each respectively.

ARTICLE XII. AMENDMENTS

SECTION 1. Any provision of these bylaws or articles of association, if not prohibited by law, may be amended, altered, or repealed—

(1) at any regular meeting or any special meeting called for such purpose, by an affirmative vote of a majority of all the members of the association, provided that in the call of such regular or special meeting there shall be given a complete written statement of such amendments, alterations, or repeal, with a statement of the purposes therefor, or

(2) by the written assent of or rejection by a majority of all the members of the association, filed with the secretary of the association, provided that there shall be mailed to each member at his last known address, or placed in his hands at least ten (10) days prior to the effective date, the complete written articles or sections to be amended, altered, repealed, or rejected, together with the complete written statement of proposed additions, amendments, or alterations and the purposes therefor, and the vote, if by mail, by which the above changes are perfected shall be recorded with the secretary.

SAMPLE

[Front]

APPLICATION FOR MEMBERSHIP IN _____ COUNTY GROUP MEDICAL SERVICE

I, _____, hereby make application for membership in the _____ County group medical service and designate the following physicians as my first and second choice for my family physician.

Dr. _____ _____
Name Address

Dr. _____ _____
Name Address

I agree to pay $_____ or 6% of my net cash income, whichever is greater, but not more than _____, for one year's participation in the service. As the basis for determining said fee, I submit an estimate of my cash income and farm operating expenses for the 12 months ending December 31, 194—.

(On back of page.)

Family members to be included:

Family member's first name	Relation to head	Dependent on family head (yes or no)	Married (yes or no)	Living at home	Sex
1	(Wife)				
2					
3					
4					
5					
6					
7					
8					
9					
10					

78716—46——12

[Back]

STATEMENT TO WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.

By_____ Age_____ Race_____ Address_____

1944 Receipts from:

1. Crops (grown by self in 1944) sold_____ $_____
2. Sales value of crops (grown by self in 1944) expected to be sold___ $_____
3. Sale of *hogs, cattle, other livestock, dairy products, eggs,* and *poultry*_____ $_____
4. Sale of *gravel, minerals, rights-of-way, easements* and *timber*_____ $_____
5. AAA payments_____ $_____
6. Other farm income: *Cash rent, share rent, crop insurance, rental of farm equipment, grist mill, hauling,* and *stock breeding*_____ $_____
7. Off-farm work: Wages and salaries of family head and others on application_____ $_____
8. Other outside income:
   - A. Old-age assistance_ $_____
   - B. Allotment to servicemen's dependents listed on application_ $_____
   - C. Pension_____ $_____
   - D. Etc_____ $_____

Total receipts_____ $_____

Total receipts_____ $_____
Less total expenses_____ $_____
Net income_____ $_____
Fee 6% of net income_____ $_____
Number acres owned_____ _____
Number acres farmed by owner_____ _____
Number acres rented to others_____ _____
Share rent _____ Cash rent _____

1944 farm expenditures for:

1. Feed_____ $_____
2. Crop expenses: *Field* and *garden seed, fertilizer* and *poison, crates, baling wire, ties, bagging, ginning, threshing, combining, cutting silage, hay baling,* and *cash rent* or *cash value of rental share of crops*_ $_____
3. Farm labor hired_____ $_____
4. Truck expenses_____ $_____
5. *Tractor expenses* and *tractor hire*_____ $_____
6. *Machinery repairs, machinery hire* and *horse shoeing*_____ $_____
7. Taxes_____ $_____
8. Insurance on *buildings, equipment, livestock,* and *crops*_____ $_____
9. Interest on *production loans,* and *farm purchase mortgages*_____ $_____
10. Depreciation on *work stock* and *farm equipment*_____ $_____

Total expenses_____ $_____

Signed_____
Applicant

Applicant assisted in making application

By_____
Committeeman

ACTION OF COMMITTEE

Approved
Rejected_____
Chairman, membership committee

SAMPLE

[Front]

MEMBERSHIP CARD No. _____

WALTON COUNTY AGRICULTURAL HEALTH ASSN., INC.

Period: November 1, 1942, to October 31, 1943

THIS IS TO CERTIFY THAT _____ is a member of the Walton County Agricultural Health Association, Inc., and is entitled to all the benefits as provided in its constitution and bylaws.

_____
(Secretary)

I agree to abide by the rules, regulations, and bylaws of the association.

_____
(Member's signature)

Members of family eligible for medical care:

	Name	Age	Address
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

[Back]

Members should go to the doctor's office for service if physically possible. The doctor is better prepared to render needed services in his office.

This membership card is issued and accepted subject to the provisions contained in the constitution, bylaws, and the rules and regulations adopted and to be promulgated by the board of directors.

This membership may not be transferred or assigned or otherwise disposed of. To cause or permit the fraudulent use of this membership card or to direct the benefits therein provided to a nonmember shall automatically suspend the member and his family from any further service provided by the association.

RECORD OF SERVICES RENDERED:

Patient	Date rendered	Physician's initials
_____	_____	_____
_____	_____	_____
_____	_____	_____

MEMBER'S LEDGER

This record covers period
from_____19____ to_____19____
including record on reverse side.

Date admitted_____
Date terminated_____

Member's name_____
Address_____
Race_____ Membership Card No._____
Membership Certificate No._____

Given name	Age	Sex	Relation to head	Given name	Age	Sex	Relation to head
1.				9.			
2.				10.			
3.				11.			
4.				12.			
5.				13.			
6.				14.			
7.				15.			
8.				16.			

Membership and special fees

Date	Paid kind of fee	Receipt No.	Amount

Month of service	Patient's name (also age if another member of family has same name)	Kind of cases: N-new; O-old; R-referred	Diagnosis for physicians' surgeon specialists' and hospital services. Dental services rendered	Surgery: O-none; 1-minor; 2-major	Name of physician, surgeon specialist, hospital, druggist rendering account	Services rendered and approved charges															
						Physician					Surgeons' specialists' charges		Hospital		Drug charges		Dentists' charges	Extra hospital and other charges			
						Number of calls															
							Home														
						Office	Night	Day	Hospital	Charges			Days	Charges				Item	Paid by: P-patient A-assn.	Charges	
1																					
2																					
3																					
4																					
5																					

STATEMENT OF ACCOUNT OF PHYSICIANS' SERVICES

WITH THE

WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.

MONROE, GA.

Family identification card No._____
Head of family_____ Address_____
Patient's name_____ Age_____ Sex_____
Diagnosis_____

Treatment involved:
1. No. surgery_____
2. Minor surgery_____
3. Major surgery_____

I began treatment of this illness this month_____, last month or earlier_____
If case was referred by another M. D., check here_____

Services rendered:

office visits	$_____	Date_____
day home visits	$_____	Date_____
night home visits	$_____	Date_____
hospital visits	$_____	Date_____
miles traveled	$_____	
Medicine furnished	$_____	
	$_____	
	$_____	
TOTAL	$_____	

Other related or emergency services:

$_____
$_____
$_____
$_____
$_____

Action of reviewing committee:
Dr. _____
Dr. _____
Dr. _____

_____
M. D.

Date_____

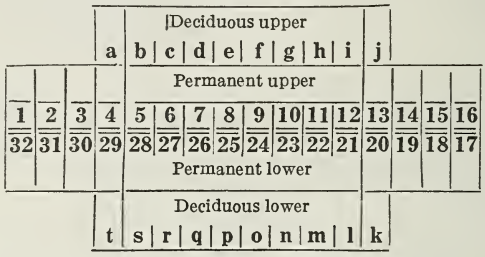
STATEMENT OF ACCOUNT FOR DENTAL SERVICES

WITH THE

WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.

MONROE, GA.

Card No._____
Head of family_____ Address_____
Patient's name_____ Age_____ Sex_____
This case received service last month. Yes_____ No_____
The work, listed below, completes all fillings, extractions, and treatments now needed by this person.
Yes_____ No_____
This person has lost teeth which have not yet been replaced. Yes_____ No_____



Identify Teeth Involved Using Numbers or Letters on Above Chart

Number	Service	Charges
_____	Extraction(s) due to: Caries _____ Pyorrhea _____ Other _____	$_____
_____	Fillings, cement or Synthetic porcelain	_____
_____	Fillings, amalgam	_____
_____	Fillings, other	_____
_____	Peridontal treatments	_____
	Prophylaxis	
	Other service (specify)	
_____	_____	_____
_____	_____	_____
	Total	$_____

Action of reviewing committee:
Dr._____ D. D. S.
Dr. _____
Dr. _____ Date_____

STATEMENT OF PRESCRIPTIONS FILLED FOR MEMBERS OF

WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.

MONROE, GA.

Druggist _____ Month _____
Address _____

Card No.	For whom filled	Date of prescription	Cost of prescription
1			
2			
3			
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The above charges are correct and in line with professional charges agreed upon for this group.

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Druggist

WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.

MONROE, GA.

Membership Card No._____

PRESCRIPTIONS

For_____ Address_____

NO REFILL

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_____M. D
Druggist_____ Date_____ Reg. No._____

STATEMENT OF ACCOUNT OF HOSPITAL SERVICES
WITH THE
WALTON COUNTY AGRICULTURAL HEALTH ASSOCIATION, INC.
MONROE, GA.

Page No.____________

For the month of __________________ 194____

Date	Membership card No.	Head of family	Name of patient	Type of illness	New case this mo. Check		Referred by Dr.	If surgical involved indicate		Room		Anesthesia	Operating room	Delivery room	Drugs	X-ray	Laboratory test		Total chgs.
					Yes	No		Maj.	Mnr.	Days	Chgs.						Type	Fee	
											$____	$____	$____	$____	$____		Balance brought forward		$____

Dr.____

Dr.____

Dr.____

Action of Reviewing Committee:

Totals $

____
Signature of Superintendent

Date ______________________________ 194____

Highlights of the Development of the Cass County Rural Health Service

PLANNING AND EDUCATION

March 23, 1941.—Cass County Agricultural Planning Committee appointed a subcommittee to arrange a meeting at which health problems and conditions might be discussed by the entire committee.

April 19, 1941.—Cass County Agricultural Planning Committee held a meeting spotlighting health. Statements pertaining to health conditions and services were presented by representatives of the county health unit, Farm Security Administration, Texas Welfare Agency, Selective Service Board, public schools, AAA committee, and Agricultural Extension Service. At the conclusion of the meeting the committee made the following recommendations: (1) That the county agricultural planning committee foster and sponsor "any health program available or that might become available" in the interest of the rural families; (2) that the Texas Food Standard be explained and the leaflets distributed; (3) that the committee assist in every way possible with the hot-lunch program in the county's schools; (4) that the committee assist in securing more grist mills for the communities whereby more whole-grain products may be used at home.

March 4, 1942.—Assistant State extension service agent and the regional medical officer for the Farm Security Administration conferred with members of the Cass County Medical Association and were assured of a favorable attitude toward the proposed health service plan. Later the county extension agent discussed the plan with the chairman of the Cass County Agricultural Planning Committee and a county meeting was called for March 10, 1942.

March 10, 1942.—Cass County Agricultural Planning committee met to discuss the prepayment plan for medical care. The discussion was led by the assistant State extension service agent. Motion was made and carried for the committee to sponsor the proposed health association. A subcommittee on organization, consisting of seven members, was appointed.

March 19, 1942.—Subcommittee on organization of the Cass County Agricultural Planning Committee prepared inventory sheet for applicants. It was recommended that O. E. McGilvray, a local man, be appointed as organizer until the organization was completed.

March 23, 1942.—Cass County Agricultural Planning Committee met to consider more details of the proposed health association. A local leader, chairman of the subcommittee, covered the following points in a statement to the group: (1) Success of the organization depends entirely upon local farm leaders, (2) local community committees were suggested as effective means of organizing the people; (3) these local community committees are advised to solicit assistance of preachers, teachers, businessmen, and other leaders; and (4) it was suggested that no one be paid for assisting in the organization campaign.

March 13, 1942.—Cass County Agricultural Workers Association considered the proposed health plan. The plan was presented by the chairman of the subcommittee on organization of the county agricultural planning committee. Agricultural workers voted to assist in the organization work. A committee of two members of the agricultural planning committee and one member of the Agricultural Workers Association were elected to work out an organizational program.

April 7, 1942.—Subcommittee on organization discussed the difficulty of securing a State charter. It was recommended that consultation be carried on with the regional attorney, office of the solicitor, relative to charter procedure.

It was decided to furnish the Medical Society of Cass County with a list of families designating their choice of physician.

The subcommittee turned "thumbs down" on an out-of-county organizer and asked that a local citizen be considered for the position.

May 7, 1942.—Cass County Agricultural Planning Committee discussed progress in the organization work, along with other business.

May 9, 1942.—Cass County Agricultural Victory Council (successor to Cass County Agricultural Planning Committee) requested the chairman of the subcommittee on organization to review briefly the steps taken in the organization of the health association.

The victory council and neighborhood leaders were vested with responsibility to assist applicants in making out income inventories and to collect fees.

June 2, 1942.—Incorporation of the Cass County Rural Health Service.

June 8, 1942.—First meeting of incorporators, directors, and members. Elected officers for 1942–43. Caused copy of charter to be entered in minute book.

Adopted bylaws and empowered the president and treasurer to receive the grant from the Government.

July 3, 1942.—Board of directors met and employed manager at $175 per month effective July 1, 1942.

July 16, 1942.—Professional groups and directors met to draw up agreements between professional groups and the Cass County Rural Health Service.

August 13, 1942.—Professional group met and agreed on charges for professional services.

August 31, 1942.—Board of directors met, set closing date for receiving members as September 15, 1942. Agreed to pay all bills of members beginning September 1.

September 1, 1942.—The Cass County Rural Health Service began its first year of operation.

OPERATION

November 28, 1942.—Board of directors met, appointed committee to review medical bills, and likewise a committee to review dental bills.

January 22, 1943.—Board of directors met, resolved to reduce payment on drugs from 100 percent to 50 percent, starting February 1, 1943.

March 4, 1943.—Board of directors met, discussed membership fees for 1943–44, resolved to raise minimum fee from $6 to $12.

March 10, 1943.—Board of directors met, heard a report from the manager on health conference which he attended in Cincinnati, Ohio. A committee was appointed to review applications for 1943–44.

June 23, 1943.—Board of directors met, at which time Dr. Fred Mott, United States Public Health Service, Washington, D. C., reviewed status of rural health services in the United States. A general discussion followed.

August 30, 1943.—First year's operation ends.

October 6, 1943.—Special meeting of board of directors. Set date of annual meeting as October 29, 1943. Authorized and empowered treasurer to obtain the grant for the second year's operation.

October 29, 1943.—Annual meeting of members.

November 1, 1943.—Second year's operation begins.

November 3, 1943.—Board of directors met, elected officers for 1943–44, appointed an advisory committee to the board of directors, changed hospitalization from 21 days to 14 days, reappointed O. E. McGilvray as treasurer-manager.

December 10, 1943.—Board of directors met, authorized opening bank account.

January 26, 1944.—Advisory committee to the board of directors met, transferred funds to a nursing fund and set up a contingent fund.

June 17, 1944.—Called meeting of the board of directors. Audit of the association's books was requested.

Undated.—Board of directors met, accepted audit without discussion, rescinded act of November 3, 1943, raising the secretary-treasurer's salary, from $200 to $250 per month, and raised bookkeeper's salary from $150 to $175 per month.

September 7, 1944.—Board of directors met, accepted budget for 1944–45, and requested Federal Government grant of $45,000 for the third year's operation.

October 31, 1944.—Second year's operation ends.

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